

GNU Essentials

# **GNU Linux Manual of Style**

**for**

**Technical Content Creators  
2021**

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# Foreword

As the need for more GNU Linux focused documentation increases, there were many challenges educating Windows or Mac users about GNU Linux commands and standards. The documentation quality suffered and the ability to enable developers decreased as documentation was sometimes better than what was available online but not “good enough” to work or run. GNU Linux writers often fought an uphill battle trying to explain POSIX and functionality with proprietary communications teams.

In some cases, command prompts were included in copy code snippets, instructions to use `sudo` when root were present, and non POSIX characters converted by proprietary systems or software configurations were included in copy code snippets. These non-functional characters slow down the process of getting a demo to run or even creating a prototype. When instructions include these types of non functioning characters, we often forgive such simple errors. However, when these types of errors happen, this is a frustration for the developer or developer team.

One example I can give is when a script needs permissions to execute and there is no instruction to do so. As “veterans”, we know this must be done. However, new users, new developers and teams new to GNU Linux may not even know what to do. A simple `chmod`, of course, will take care of this situation.

Other issues include extended installation instructions or pages of reference for a simple man page. While some newer developers may not use or read man pages, these are the informative references we use to quickly execute commands in the correct syntax or format. GNU Linux documentation is essential in developing software and prototypes. Without quality documentation, developers are left to hack at it.

Documentation driven development is also a benefit to any project. When the documentation content creator understands the software, platform and system, this can drive development. Advancing your project with a documentation content creator is also essential in maintaining a relationship with the audience. There are no substitutions for a great GNU Linux or FOSS content creator. The content in this book is guidance for improving GNU Linux documentation quality.

While some have argued in the past, there was not a need for a style guide or standards, this book offers guidance to improve documentation quality and the developer experience rather than dictate or establish any standards whatsoever.

The opportunity to choose how we use our resources and share our experiences as well as share our tools - is what makes this community great!

## About the Author

Marcia Wilbur is a GNU X veteran, author and developer of over 20 years. She holds degrees in computer science, technical communications and information technology. Prior to obtaining a degree in computer science, she worked as a typesetter in printing/publishing for Bowne\*, Kinkos\* and various print shops. As faculty, she taught freshman courses for Business Writing for the IT Professional. She also taught several freshman courses in the Humanities department. Her previous work includes clerical duties at the Scottsdale Community College library and the Three Rivers Community Technical College library.

After serving as an intern and advisory committee member for the Free Software Foundation in 2002-2003, she was employed to “validate” documentation for Linux Essentials in cooperation with CompTia\* and Aries\* technology. This content was computer based training for university students worldwide to prepare to pass GNU Linux certification. After finding multiple errors, she was enlisted to write the documentation as the sole technical writer. She wrote this documentation as the content for the courseware as the sole technical writer. In her own words, “I tried to convince them to call it GNU Linux Essentials... One section about history came straight from an exchange with RMS.”

In 2003, she volunteered at the Electronic Frontier Foundation (EFF), writing the Digital Millennium Copyright Act (DMCA) FAQ for the DMCA blog. Her writing includes articles and contributions published in Linux Magazine, LWN\*, STC\* Rough Draft and more.

Her consulting work includes documentation driven development, migrations, integrations, implementations, system administration, learning development, developer experience testing, coding, upgrading as well as sunseting systems in the fields of semiconductor, embedded, AIoT, healthcare, education and transportation.

More recently, her focus is with Edge computing, Artificial Intelligence and Internet of Things. She recently completed a project as a technical editor for a BeagleBone\* book for Wiley\* Publishing.

Marcia is also a privacy advocate, speaking about surveillance and ethics. In 2019, she spoke at Yale Law school about privacy. Her volunteer work includes serving underserved areas with educational resources using GNU X. She also has volunteered with Apache\* OpenOffice, LibreOffice\* as well as SolarSpell and Kids on Computers.

She is the lead Debian\* developer for the Debian release of respin, a backup utility and distro customization tool. Marcia serves the community as the Chief Guru of Copper GNU Linux User Group holding GNU Linux/Pi meetings and supporting projects.

# Overview

This style guide is used specifically for R00T magazine but can be used to assist other authors in the pursuit of quality documentation.

Please provide feedback or contributions through our gitlab: [gitlab.com/remastersys](https://gitlab.com/remastersys)  
Or through email: admin at [gnulinux.io](https://gnulinux.io)

# Dedication

For Community!



# Revision History

Date	Revision	Description
06-06-2020	0.1	Initial Draft
06-09-2020	0.2	Added Change Management Section – Chapter 1
06-28-2020	0.3	Add Revision History
07-20-2020	0.4	Add index
08-01-2020	0.5	Add revised index entries
09-06-2020	1.0-0	Proof
10-02-2020	1.0-1	Page Numbering – margin
11-29-2020	1.0-2	Renumber pages in TOC
04-05-2021	1.0-3	License update

# **CHAPTER 1. The Documentation Development Life Cycle**

# 1.0 Basics of Technical Authoring

## Tell them!

1. Intro: Tell them what you are **going to do**
2. Body: Tell them **how to do it**
3. Summary: Tell them **what you did**
4. Next Steps: Tell them **what they can do next**

An outline can be as simple as a list prepared in your mind's. Organizing the outline in your mind prior to ever putting the content down on a page is one way to outline.

## 1.1 Documentation Development Life Cycle

The following are components of the documentation development life cycle.

- Requirement Analysis
- Audience Analysis
- Document Outline
- Prototype
- Develop
- Review
- Publish
- Maintain/Support

## Requirement Analysis

Similar to a needs analysis but deeper into the requirements of the documentation after the need is established. What documentation is required? Just a user guide? Additional Administration guide? Application note?

A sample template is provided.

## Requirement/Needs Analysis Template

Question	Response
<b>Do we need documentation ?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Why do we need documentation</b>	List reasons why below <ul style="list-style-type: none"> <li>• man page vague</li> <li>• some users do not read man pages</li> <li>• options not self explanatory</li> <li>• support community</li> </ul>
<b>Proposed time frame</b>	
<b>Proposed team members and contribution percentage or hours</b>	<b>Technical Writer/Editor</b> 20 hours a week <b>Developer</b> 5 hours a week <b>Project Manager</b> 1 hour a week (basic task management - could be managed by technical writer or developer alternately) <b>Testing</b> - Validation and review - depends on project size and scope
<b>Proposed documentation required</b>	<div> <div> <input type="checkbox"/> Installation Guide  <input type="checkbox"/> Get Started Guide  <input type="checkbox"/> User Guide  <input type="checkbox"/> Release Notes  <input type="checkbox"/> System Administrator Guide  <input type="checkbox"/> Tutorials  <input type="checkbox"/> Video demos  <input type="checkbox"/> Reference Guide               </div> <div> <input type="checkbox"/> Quick Start Guide  <input type="checkbox"/> Reference Card  <input type="checkbox"/> Application Notes  <input type="checkbox"/> Product Brief  <input type="checkbox"/> Product Specification  <input type="checkbox"/> Whitepaper  <input type="checkbox"/> Facilitation Guide  <input type="checkbox"/> Student Guide               </div> </div>
<b>Style Guide exists?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Where?
<b>Other considerations</b>	<ul style="list-style-type: none"> <li>• accessibility, privacy, security</li> <li>• What about Version Control?</li> </ul>
<b>Proposed Video/audio</b>	<div> <div> <input type="checkbox"/> podcast  <input type="checkbox"/> streaming live video webinar  <input type="checkbox"/> live demo               </div> <div> <input type="checkbox"/> recorded demo  <input type="checkbox"/> twitch stream  <input type="checkbox"/> audiobook               </div> </div>

<b>Content Management</b>	Where do existing videos reside? Where will future content reside?

## Audience Analysis

Analysis of primary and secondary audiences – template example is included. This is a starter template. Insert additional information in the response field.

## Audience Analysis Template

### Project: Living on the Edge - AI at Home

#### Primary Audience Profile

- Maker
- Entrepreneurs
- IOT Developers
- Enterprise Developers

Question	Response
What is the job function and role of the primary audience?	Best Guess
How will this audience use this document?	For reference with hands-on samples/demos
What is the educational level of this audience?	[ ] new [ ] can hack it [ ] some knowledge [ ] expert
How experienced are the members of this audience with IoT?	[ ] new [ ] can hack it [ ] some experience [ ] expert
How experienced are the members of this audience with AI or machine Learning?	[ ] Beginner [ ] Intermediate [ ] Advanced
What is their work environment like?	[ ] Lab [ ] Desk/Office [ ] Remote
What is their interest level?	[ ] Low [ ] Medium [ ] High
What biases, preferences, or expectations, might they have?	[ ] Low [ ] Medium [ ] High
Which operating systems are they familiar?	List here:

How much theory or “nice-to-know” information will they want?	Insert info here:
What other training will they receive in addition to the documentation?	<input type="checkbox"/> samples <input type="checkbox"/> tutorials <input type="checkbox"/> training <input type="checkbox"/> webinars <input type="checkbox"/> other:

## Secondary Audience Profile

Question	Response
What is the job function and role of the secondary audience?	Best Guess
How will this audience use this document?	For reference with hands-on samples/demos
What is the educational level of this audience?	<input type="checkbox"/> new <input type="checkbox"/> can hack it <input type="checkbox"/> some knowledge <input type="checkbox"/> expert
How experienced are the members of this audience with IoT?	<input type="checkbox"/> new <input type="checkbox"/> can hack it <input type="checkbox"/> some experience <input type="checkbox"/> expert Users experience vary. Level varies from beginner to expert. These are school instructors.
How experienced are the members of this audience with AI or machine Learning?	<input type="checkbox"/> Beginner <input type="checkbox"/> Intermediate <input type="checkbox"/> Advanced
What is their work environment like?	<input type="checkbox"/> Lab <input type="checkbox"/> Desk/Office <input type="checkbox"/> Remote Educational office environment for administrative staff or teaching environment for instructors, where they must have a basic computer for scheduling their courses with resources and standards.
What is their interest level?	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High
What biases, preferences, or expectations, might they have?	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High
Which operating systems are they familiar?	List here:
How much theory or “nice-to-know” information will they want?	Insert info here:
What other training will they receive in addition to the documentation?	<input type="checkbox"/> samples <input type="checkbox"/> tutorials <input type="checkbox"/> training <input type="checkbox"/> webinars <input type="checkbox"/> other:

**Prototypical User example:**

The prototypical user will be a teacher who is preparing the coursework for the class. This may need approval or align with the teaching requirements.

## Document outline

Draft the initial outline based on the requirements and need. If one is not already created in the needs analysis stage, create documentation objectives. These objectives are similar to learning objectives and include:

- Purpose
- What will be covered or included
- Goals

### Example Objectives

**Purpose:** To document the new module for the web application, iGNULearn

**What will be included:** Each option, configuration, system administration and user navigation

**Goals:** To document the new module completely for users and system administrators

The outline may differ depending on type of documentation needed. An article for developers for example, may use a standard content strategy familiar to other developers. Drupal or Wordpress modules have a standard content strategy for the most part. The description and version are included as well as other information.

For repeated content needs, a strategy can be followed, not for the sake of consistency alone, but for the sake of including those important key elements necessary to reach your audience.

To create an outline, consider the organization and flow of the document. In the case of software documentation, this can be done by section. Each section can be outlined per the requirements and features. A troubleshooting section is often found at the end of the guide.

### Brainstorm topics

There are many brainstorm techniques. Use the method best for you and project needs.

- notes
- lists
- outside perspectives



Organize topics. The type of organization or order will vary. Select an order during kick off or as soon as possible prior to writing the draft.

- chronological
- functional
- by component
- alphabetic
- features
- other

## **Starter Outline**

Chapter 1. Overview

Chapter 2. Introduction to Machine Learning

Chapter 3. Pre-trained models

Chapter 4. Optimization

Chapter 5. Application 1 – Object detection

Chapter 6. Application 2 – Emotion recognition

Chapter 7. Other use cases

Chapter 8. Conclusion

Chapter 9. Future work and resources

## **Prototype**

This is a content management or strategy step to prepare in advance for content creation. Will include:

**Style guide** creation or updates

**Template** creation or updates

**Content Strategy standard creation or updates**

**Workflow** documentation or process improvements

**Change Management** procedures

**Note:** When working with older or proprietary systems, remember to write GNU Linux documentation on the same system as is being documented. An example would be to write documentation requiring Debian Stretch with kernel 4.15 on Debian Stretch with kernel 4.15. If a dedicated system is not a possibility, consider using a virtual machine. Convert proprietary processes to non-proprietary where the conversion improves efficiency.

## Style Guide

Style guides assist the authors to create consistent looking documentation readers will come to understand and expect. Visual cues for readers enable your audience to quickly get to the information they are looking for. One example is a caption. An example of a caption style is:

*Figure 1.* This picture is about this topic

Captions must be notable and descriptive.

This way, someone searching for a particular image or topic, there is more information about what the configuration would look like, if the caption is descriptive. Consider the time of the reader is as valuable as your own. If you keep in mind the audience and respect the audience, documentation quality is fairly automatic.

## Templates

Create templates to save time and reduce error. Templates are a good way to organize documentation. Templates can be easily customized documentation tools to ensure consistency with the style guide and branding of the project or organization. There is no reason to reinvent the wheel. With styles applied to the document, the compliance with the style guidelines become simple to apply. This is how several documentation projects update and create content for their user guides.

Often a project will use markdown rather than a document editor. Many different tools are available for creating documentation. This will come in a later chapter about tools in the content creator toolbox.

Templates can include the yaml files needed to generate html or the file hierarchy for generating SCORM compliant learning and documentation PDFs using single sourcing, XML, XSL and DITA. You can even have a template for rolling out simple docs based on a script.

The project needs will vary. However, if the templates are shared and accessible, a library of templates can be a valuable resource for any project!

## Content strategy: Web based article or guide

One winning formula for content strategy is found in Drupal and Wordpress modules. For Drupal, the modules include information about what the module is and version control. Important also is how it works. Often, digging deeper, instructions or demos were available. This information is a quick path

to installing a module or plugin and could work for your quick start or get started guides as an overview.

Add a tutorial after the demo to enable developers to configure or custom the original demo to their needs.

Of course, your project can use different phrases to fit your brand.

- Description
- Features
- Screenshots
- What's new video

## **Example Strategy**

### **Overview or Introduction**

Short overview - "tell them what you'll tell them"

#### **What it is**

Details about what it is

#### **How it works**

Details about how it works

Architectural diagram where useful

### **Main Content** "tell them"

#### **Prerequisites to perform demo**

Hardware

Software

#### **Estimate of time to perform demo**

Just a short estimate can really assist a developer or reader to understand how much time to schedule or dedicate to this demo. This really does make a significant difference to some busy devs. Try to be as accurate as you can because otherwise, what's the point?

#### **Installation**

An example may be an installation section in a get started guide. Installation may be as simple as `apt install <tool>`. Therefore, there really is not a lot of need for installation guidance, depending on your project. Keep installation sections simple.

### **Demo - Instructions for hello world**

People enjoy the blinking led or simple action

This reinforces the intent and can inspire or motivate

Success is essential

### **Demo with a twist**

Lead the reader based on previous demo to execute instructions similar to enable developers to run more future applications

### **Conclusion**

“Tell them what you told them”

### **References - resources - learn more**

Include links or references to a few more relevant resources.

Always remember, when linking to third party or outside resources, you run the risk of 404!

## **Outline: Web based article or guide**

### Overview

- What it is

- How it works

### Main Content

- Prerequisites to perform demo

- Hardware

- Software

- Estimate of time to perform demo

- Demo - Instructions for hello world

- Demo with a twist

### Conclusion

### References - resources - learn more

## **Workflow**

Understanding workflow improves quality and time. When the workflow is documented, locating the correct logs and information to troubleshoot is clear.

## Project Workflow

Documenting workflow can make a huge difference in completion of a project. Once the workflow is determined, the project components are more clear. An example is a GNU Linux server not connecting to another server. A file is not transferred and the process is incomplete. This happened on a project once. The QA department did not even realize the origin of the file being transferred was from a legacy GNU Linux server.

## Documentation Workflow

- How will the author or technical communicator create documentation?
- What tools will the author/publisher use?
- Does a prior standard or workflow exist?
- Can this be converted to a non-proprietary process?
- What is the collaboration process?
- What are other projects doing with success?
- Can the workflow be improved or updated?

## Converting workflows to non-proprietary

Some of the most fulfilling tasks can be to automate work to complete a job more efficiently. Writing scripts and using non-proprietary software workflows can enable the content creator to save time and resources while maintaining error free content.

### Example 1. Non-Functional non POSIX characters

Use a script or grep/sed commands to find and replace odd non POSIX characters in content. At times, you may find non POSIX characters in copy code snippets or commands.

**Correct** character for commands: -

**Incorrect** character for commands: –

While the difference may not be obvious to the common observer, the technical writer or developer will note this character will NOT work at the command line. This will cause the command to fail. This slows down your reader. When this happens multiple times, this can be frustrating and call into question the reliability of the documentation.

These characters are inserted in the documentation in several ways:

- Windows users and MS Word
- Windows users and MS Outlook
- GNU Linux users and LibreOffice settings

There are ways to configure the settings for these applications to avoid the conversion from a dash to a non POSIX character. Using an IDE or GNU Linux application can prevent this type of error. If you receive documentation with the error, a simple script can be run against the documentation to replace the incorrect character with the correct character.

**Note:** If you are using the non-functional characters for some reason other than in code or commands, note this when implementing your replace method. All of this being said, when GNU Linux writers create content using GNU Linux, these types of errors are typically not a problem.

## Ugmug

```
#!/bin/bash

# Author:  marcia wilbur GPLv3
# Purpose: validate and repair functionality for Linux if
#          using MS writers
# Usage:   grep character path/to/*.md

# ms dash: not functional

echo "replacing MS weirdness"
result=$(grep - filename.md)
echo $result
sed -i 's/-/-/g' ./*.md
echo "below are the instances of non functional dash (-)"
cat filename.md | grep '-'
```

### Code sample 1. Non-functional dash

Often in documentation the wrong non-functional quotes will be present. Replace quotes using a script or command such as the script below.

```
# literal quotes

echo "replacing literal quotes"
$quotes=$(grep "` filename.md")
echo $quotes
sed -r 's/\\\\"/\\'/g' ./*.md
echo "below are the instances of the literal quote"
cat filename.md | grep `
```

## Change Management

One great benefit to keeping a good changelog is when someone receives updated documentation, the changelog can be used to minimize the research for what was changed. In documentation, often a revision history is placed in the front matter. An example is provided.

Date	Revision	Description
06-06-2020	0.1	Initial Draft
06-09-2020	0.2	Added Change Management
06-28-2020	0.3	Add Revision History

## Develop Draft

### Create documentation

Document process and workflow for pass off

Different projects will have different ways of organizing, collaborating and collecting data. Here is where you can turn the data into information and present the content to the audience in the way set out by your style, outline and brand.

Use the templates to create your documentation. With the outline, style guidance, templates and workflow, you have all the tools needed to create documentation.

How you gather good content and develop the draft is dependent on your project.

Often a project will have 0 documentation. Where can you start developing the draft?

- Collect data
- Gather and verify content and organize
- Interview developers
- Read Code Requirements
- Read Code
- Alpha/Beta test the software – sandbox available?



## Fill the GAP

Do not assume the reader knows information!

When writing documentation, remember, the reader may not have the same background, experience and knowledge as you. Often technical communicators are employed to fill the gap. What may seem obvious to an engineer or developer may not be obvious to a new developer or new grad.

### Example: Explanatory instructions with value

**Incorrect:** Use -r with uuidgen

**Correct:** The -r flag is used to generate UUIDs version 4 - random numbers.

## Quality Assurance Testing v. Usability Testing

The difference between Quality Assurance Testing and Usability Testing is one is based on success of the features and the other is based on success of human computer interaction. Historically, technical writers are the experts in usability. In fact, Arizona State University recently added a concentration in Usability for their technical communications degree.

- Validate software (QA)
- Conduct usability tests (DX/UX)

Participant testing either prior to publishing or after publishing can offer excellent insight about how your readers use the documentation and product. However, a participant pool of 4 people doesn't really tell a great story or give great data.

The quality and quantity do matter in testing. While considering participants for the testing, criteria must be set forth. When the participant testing criteria is set forth by the developers, useful testing may move forward. Without correct participant pool, testing and criteria, testing is of little to no value.

## Review

There are several types of reviews performed for documentation. The tasks are different for each type of review.

As a technical editor, tasks include running code snippets to ensure or validate the code.

As a technical proofreader, tasks were different and included grammar and technical language proofreading.

There are several main reviews to perform for documentation prior to publishing. Depending on your project needs, you may perform none of these or more than one of these. However, keep in mind, review only works when valid feedback is presented and improvements are made based on feedback.

1. Valid Feedback
2. Responsive to feedback
3. Implement quality improvements based on feedback

Types of review prior to publication:

<b>Functional</b>	Review (usability, useful)
<b>Editorial</b>	Review (grammar, copy edit)
<b>Legal</b>	Review (copyright, trademark)
<b>Peer</b>	Review (unit/project standards)
<b>Technical</b>	Review (usability and correct)

Do you have a review policy, process or software?

Careful when reviewing documentation to select reviewers qualified to review the documentation without any conflict of interest.

**Example:** Do not give a report the task of reviewing a manager or supervisor's documentation. Whether your format conversion uses a tool or is done in a manual process, consider time, efficiency and quality.

Using proprietary tools like Robohelp is unnecessary. Markdown can easily be converted to html output or if you choose to use PDF output, this can be done with markdown also. A review of documentation can be either a simple peer review or a more complex by content experts. To ensure documentation is useful, usable, accurate and current, reviews must be performed alongside validation. Reviews will vary based on content, size and format.

Documentation in proprietary formats are not encouraged. However, many projects may use "docs" or "docx". These documents are easily converted to non proprietary formats using GNU Linux. Collaboration in review could include a review system or web app. This could be as simple as making comments in the text.

In some cases, your reviewers may make edits to the documentation. Using a git server will capture the "diff" or changes. Also, maintainers can merge the edits, once approved.

## **Review Considerations**

### **Usability**

- Useful
- Easy to follow
- Correct
- Technically accurate

### **Tone**

- Culturally acceptable
- Uses correct jargon (directory over folder)
- Credible

### **Content Strategy**

- Organization
- Complexity
- Detail

### **Compliance areas**

- Follows documentation guidelines
- Accessibility
- Legal Compliance - trademark/brand and copyright/licensing

## **Review Milestones**

- Initiate Review
- Review Meeting
- Review Meeting Follow Up
- Edits per feedback
- Final Review

**For any projects using Agile:**

Scrum master plans sprints for documentation with tasks. Include documentation update information in user story.

**Functional review**

This review is also considered validation. Use internal resources to conduct validation/testing. Some examples include: interns, other developers, people not familiar with the product but with the developer background, anyone able to perform the validation. When a technical writer understands the content or has the ability to perform the functional review, this is ideal. However, since the writer did create the content or worked on the content, another editor would validate against the documentation and provide feedback.

You could create templates for validation. However, casual validation with the participant/tester providing feedback notes is often enough data.

**Editorial review**

This is the review done by another technical writer. The focus of this review is grammar, tone and language.

**Legal review**

This is the review done by another technical writer. This can include the legal department. Often, legal will review documentation on their own time without meetings with the technical writer. The focus of this review is legal matters such as trademark, copyright, partnerships, potential liability, licenses, and such. You may not require or have legal representation for the project, but a trademark, license and copyright review is important for some documentation.

**Peer review**

The peer review is conducted by another technical writer familiar with the project. This review can provide feedback to various ways the documentation can be improved. However, this requires more than one technical writer for the project.

**Technical review**

During this review, the technical writer will review the technology, code and architecture to ensure these are working and make sense.

## **Participant testing**

This is often conducted after documentation is drafted. Official developer testing at an outside lab gives feedback, not just about documentation, but how to improve the developer experience. There is a chapter about the GNU Linux Developer Experience later in this book.

## **Publish**

After the general agreement or upon the timeline deadline for publishing, publish the documentation. Your project or organization's process may differ from others.

## **Media Modes (often multimodal)**

- Web content in CMS or website
- printed materials
- ebook
- PDF
- markdown in git or on git server

## **Maintain, Update and Support**

There is a significant need to keep documentation updated to maintain usability. In some cases there are security issues and patches or even such as the case with tensorflow\* deprecation of types. Stale information must be updated. Stale information or old non-functional docs are not useful or usable.

Depending on your project, support for the product or documentation support will consist of maintaining the documentation and updating information. Other lines of communication to support users visiting your documentation can include:

- Slack
- Forum
- IRC
- Email
- Ticket system
- Chat
- Phone

## 1.2 Example: Get Started Guide

To get started, the main sections of a get started guide might include:

1. Documentation or Contents - Level 1
2. Run an application - Hello World
3. Modifications/configurations
4. Projects and Tutorials
5. Next Steps

A template for guides is found below.

### **Introduction (required)**

Introduce the project/product/topic of interest. List what will be discussed.

### **What is it?**

Description

### **Objectives (optional)**

- Never enumerate
- Use bullets
- Use action verbs

### **Example: Objectives**

Upon successful completion of these instructions, you should be able to:

- Understand how time/date stamps work
- Configure the script to include a time/date stamps in python
- Run inference with time/date stamp output

### **How It Works (optional)**

This section describes:

- Design summary
- Architectural Diagram
- Components
- Services

## **Get Started (required)**

Describe the basic steps for the guide.

## **Before you begin (required)**

- Describe the prerequisites
- List requirements outside of the device hardware

## **Hardware requirements (required)**

Add information for device hardware.

- Processor Information
- RAM
- Storage minimum
- Internet connection

## **Software requirements (required)**

Add information for software.

Operating System

Dependencies

Other packages

## **Skills (optional)**

Familiar with GNU Linux commands

**Note:** Do not list default software included in the particular OS, spin or distro. Do not guide users to install 3<sup>rd</sup> party software when applications exist in the distro already.

## **Example 1: Required software**

No need to list bash for Debian

Do not lead users to install 3<sup>rd</sup> party software unless necessary

## **Example 2: Default software**

Do not lead users to install Etcher on Ubuntu when startup disk creator will do the job just fine and installed by default.



## **Install (optional)**

### **Steps (required)**

Include the steps needed to complete the task.

- Install prerequisites (required)
- Run (required)
- Stop (optional)
- Clean (optional)

### **It Works! [hello world]**

Describe the sample or introductory exercise

Include an architectural diagram

### **Modify Steps (optional)**

Include the steps needed to try, configure or customize.

- Install prerequisites (required)
- Run (required)
- Stop (optional)
- Clean (optional)

## **Tutorial(s) (optional)**

Describe the tutorial(s).

### **Tutorial 1: Title of Tutorial**

- Describe the purpose of the tutorial.
- Add an Architectural Diagram.
- Include Objectives (upon successful completion)

### **Steps (required)**

Include the steps needed to complete the tutorial.

#### **Step 1: Name of Step**

- Describe the step.
- Include step instructions

## **Step 2: Name of Step**

- Describe the step.
- Include step instructions

## **Step 3: Name of Step (optional)**

- Describe the step.
- Include step instructions

## **Additional tutorials (optional)**

## **Summary (required)**

Discuss tutorial(s)

## **Next Steps (required)**

Describe where to go or what to do next

Example: Relevant demos, similar projects

## **References (optional)**

URLs to other documentation.

## **Code Samples (optional)**

URLs to code samples or repos.

## **Additional Information (optional)**

URLs for additional information.

- Links to other resources
- Links to additional resources.

## **Troubleshooting (optional)**

Include any troubleshooting tips.

## **Legal (optional)**

Include Legal information.

## Chapter 2. GNU Linux Style Guidelines

The following guidance Includes FAQLinux GNU Linux copy style guidance for content and contributions to FAQ Linux website and magazine, ROOT.

These guidelines are in no way considered a standard outside FAQLinux. However, many considerations in this chapter may be useful for your GNU Linux content.

This guide is available and free to use in a non-commercial way.  
If you have any questions, please contact the author, Marcia K Wilbur at

[aicra@faqlinux.com](mailto:aicra@faqlinux.com)

FAQ Linux will never ask you to collaborate with proprietary tools or platforms/services such as Google Docs, Notion, Dropbox or anything similar.  
We do have a GitLab available at:

<https://gitlab.com/remastersys/FaqLinux>

## **Preferred content file types – FAQ Linux**

md - markdown  
html  
xml

### **Example: Font Style**

FreeSans or san serif font

**Aa**

abcdefghijklmnopqrstuvwxyz  
ABCDEFGHIJKLMNOPQRSTUVWXYZ  
1234567890

## 2.0 Headings

Headings are an important part of content strategy. With headings, the reader can locate information efficiently and quickly. With technical documentation, this is essential. Users do not always read the entire guide, but will skip sections. An example may be an installation section in a get started guide. Installation may be as simple as `apt install <tool>`. Therefore, there really is not a lot of need for installation guidance, depending on your project. Keep installation sections simple.

### Heading 1

The following Heading 1 style is found below.

**Font Type:** FreeSans

**Font Style:** bold

**Font Size:** 18 pt

Spacing above and below are set to .06 in this example.

### Heading 2

The following Heading 2 style is found below.

**Font Type:** FreeSans

**Font Style:** bold

**Font Size:** 16 pt

Spacing above and below are set to .06 in this example.

### Heading 3

The following Heading 3 style is found below.

**Font Type:** FreeSans

**Font Style:** bold

**Font Size:** 14 pt

Spacing above and below are set to .06 in this example.

### Heading 4

The following Heading 4 style is found below.

**Font Type:** FreeSans

**Font Style:** bold

**Font Size:** 16 pt

**Font Color:** 729fcf

Spacing above and below are set to .04 in this example.

## 2.1 Images

The images included with each heading style indicate the style of each heading. The image settings are found below. Using a gray rather than black is recommended.

### Image Captions

Use **Figure**, if possible and generate a list of figures. Original images are best. When using external images, use proper references, get permission and/or use correct licensing and attribution.

Use a standard size for images. We recommend 5.5 for instructions.

Your project may require a different size. Keep image size similar or consistent.

If size cannot be consistent, a bounding box of consistent size can be placed around images .

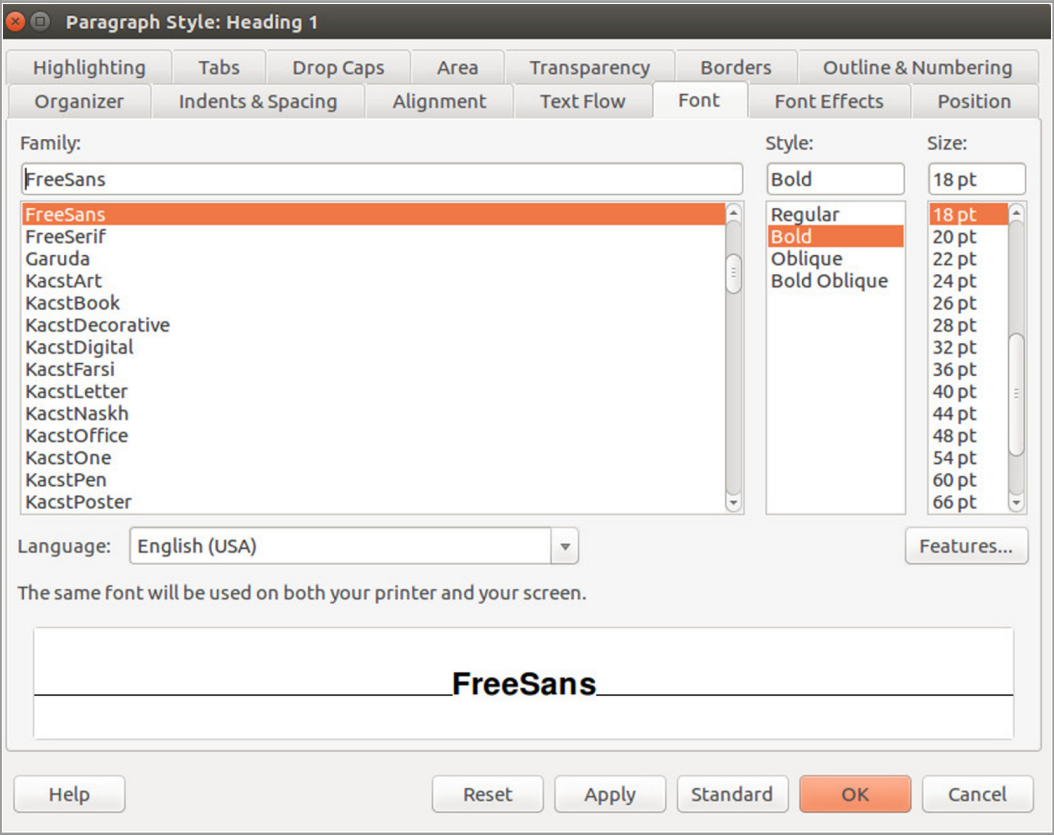


Figure 1. Example Image 5.5 with image properties border

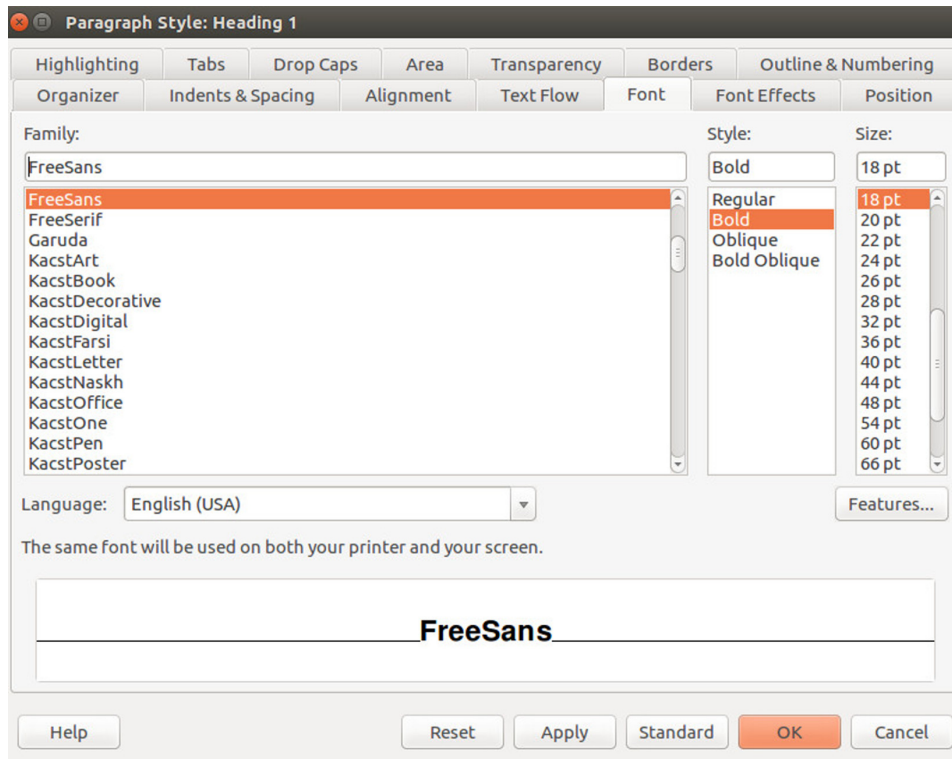


Figure 2. Bounding Box Method

## Image Settings

**Width:** 5.5  
**Border color:** Light Gray 2 (in LibreOffice)  
**Border Line weight:** .05 pt  
**Border Alignment:** Left

## Caption Settings

**Font Type:** FreeSans

**Font Style:** Emphasis or Italics on the word Figure X.  
**Font Style:** No emphasis for the description.  
**Font Size:** 10 pt  
**Font Alignment:** Left

*Figure X.* This description or **Figure X.** This description

## Callouts

Use the colors and brand for your project.

Use good contrast – avoid red except in case of emergencies!

## Magnification

Magnification is a great way to identify content within an image as a callout. Since many projects may not have technical graphic assistance, an application or tool to create this type of callout would be extremely useful.

Alternately, use a template and GIMP or an image editor to create magnified callouts. This is different from zooming in on images in Drupal or on the web.

## Icons

Adding icons offers visual cues to readers. These cues offer great navigation guidance. Remember to use clear and useful icons.

## 2.2 Copy Code

Often in documentation, copy code snippets can be useful for the end user. One thing to consider is how many copy code snippets are presented in a tutorial or demo instructions.

What may be more useful is a script or attached script containing the tedious commands.

See **Best Practices** for more information.

For the purposes of this section, decide how copy code snippets are formatted.

**Font:** Courier or Mono  
**Size:** 11  
**Wieght:** None  
**Font Color:** White  
**Background Color:** Black



## 2.3 General Content

The following guidance sets the tone for the documentation or content. There are some considerations here you can apply to your own style guide or brand also. For example, some documentation includes a boundary or bounding box around the images. This can be used to center the image without distraction of varied sizes.

### Files

#### Naming convention

Keep file names short.

Never use spaces.

Use CamelCase, \_ underscore, or – dashes instead.

**Correct:** thisfile.md

**Incorrect:** this file.md

### Character width – text and terminal

Some studies indicate 50 characters a line makes content more readable. Then, there are other studies stating 50 characters a line is too short, and 100 characters is the ideal line width. Then, of course, the default length of a terminal is 80 characters.

Decide how wide the terminal will display. If a screen capture is needed and the width must be adjusted, do so when the documentation is improved by these adjustments. 80 characters may not be wide enough to clearly display the command.

In addition to the guidance presented here, remember to use styles.

### Active Voice

Use the present tense in third person (user) without pronouns with an active voice. Use strong verbs to indicate action.

### Personification

Do not use personification in technical documentation. Inanimate objects are never “they” or “them”.

**Correct:** List **the tools** in hardware section.

**Correct:** List **these** in hardware section.

**Incorrect:** List **them** in the hardware section.

## Localization

Use simple English with simple words for quality translation.

**Example:** Choose use over utilize.

- Avoid cliches, idioms, and jargon in documentation for multiple languages.
- Avoid nouns used as verbs.

Examples of words used as nouns and verbs are: list or author

Some example action verbs are listed.

act	deliver
add	demonstrate
analyze	describe
apply	develop
arrange	edit
assign	function
assist	generate
automate	run
build	update
change	upgrade
collaborate	use
communicate	validate
define	verify

Be consistent with terms . Decide which term or word to use throughout documentation.

**Example:** “terminal” “shell” “xterm”

Be consistent with capitalization.

**Example:** localhost is preferred over Localhost or LocalHost

Often, projects have several different guidance regarding capitalization of a brand. To stay in compliance with trademark, set guidance to writers for consistence.

## Simplify Complicated Topics

One of the main duties of a technical writer can be to simplify content for readers.

Create easy to read content

Write short sentences

Avoid ambiguity

## Styles

Applying styles is one way to save time when creating documentation. In the early 2000s, this started to be a standard or expectation for technical writers.

Of course, using styles is not indicative of talent or skill at all! LibreOffice does use styles for their documentation. Why does this make sense? If the branding changes, editing a style takes only a minute or so. Manually editing or formatting all the text would take additional time - A **lot** of additional time!

*The following information about character/paragraph styles is from the LibreOffice Writer Guide 6.0 and is licensed under Creative Commons Attribution 4.0 License or later and GNU General Public License (<http://www.gnu.org/licenses/gpl.html>), version 3 or later.*

---

## What are styles?

Most people are used to writing documents according to physical attributes. For example, users may specify the font family, font size, and weight (for example: Helvetica 12pt, bold). In contrast, styles are logical attributes. For example, define a set of font characteristics and name this, “Title” or “Heading 1”. In other words, styles shift the emphasis from what the text looks like to what the text is.

## Why use styles?

Styles help improve consistency in a document. Styles also ease formatting modifications.

For example, the indentation of all paragraphs or font of all titles must be updated. For a longer document, this simple task could be prohibitive. Styles ease this task and save time.

## Style categories

LibreOffice Writer has six style categories:

- **Paragraph** styles affect entire paragraphs and are also used for purposes such as compiling a table of contents.
- **Character** styles affect a block of text inside a paragraph; they provide exceptions to paragraph styles.
- **Page** styles affect page formatting (page size, margin, and the like).
- **Frame** styles affect frames and graphics.
- **List** styles affect outlines, numbered lists, and bulleted lists.
- **Table** styles affect the appearance of tables of data.

**Caution:** Manual formatting (also called direct formatting) overrides styles. You cannot get rid of manual formatting by applying a style to it. To remove manual formatting, select the text and choose Format > Clear Direct Formatting from the Menu bar, or select the text and press Ctrl+M.

## Working with character styles

Character styles provide exceptions to the formatting in a paragraph style. They are applied to groups of characters, rather than whole paragraphs. They are mainly used when you want to change the appearance or attributes of parts of a paragraph without affecting other parts.

Examples of effects that can be obtained by means of character styles are bold or italic typeface or font colored text words.

---

## Notes, Warnings, Important, Caution

Notes are a necessary component in technical documentation. Remember to provide notes, warnings, cautions and important information in the correct location. For example, a warning belongs prior to an action. If the warning comes after a directive to action, the user is not properly informed prior to execution of the action and the warning is not as useful.

San serif font      12      Bold

**Note:** Bold the word Note. Do not bold the colon. Tab, not space before text. Wrap. Some projects may want a color background.

In some cases, your colors will reflect your brand.

**Note:** Some projects may want a color background.

## Color

Undefined – per your branding

## Page

Letter 8.5 x 11

## Margin

Top: 0.5

Bottom: 0.5

Left: 0.5

Right: 0.5

## Header

Decide whether to include a header, what information to include in the header, alternating content, a header with logo with section variables to indicate which section/chapter based or no header at all.

## Footer

Select footer content based on project preferences.

The footer can consist of a document number, section or page numbers. Also, the footer can have alternating odd and even content in the footer.

**Document Name, Number or Revision (rev xx)**  
**Page Number**  
Some projects may want to alternate between left and right locations for the page numbering.

Lower Left corner  
Page 1 of x Lower Right corner

**Tables**

Remember to use table numbers, if possible and even generate a list of tables based on styles and table generation.

**General Table Guidance**

**Table Rows:**  
**Table Columns:**  
**Table Color:**

Depends on contents  
Depends on content  
Alternate gray and white every other row or another set of colors.

**Table Text Font**

**Font Type:**  
**Font Size:**  
**Font Color:**  
**Row Color:**  
**Font Weight:**

FreeSans  
10 pt  
Black  
Alternating Light Gray 4 background with White  
None

**Table Heading Row**

**Font Type:**  
**Font Size:**  
**Font Color:**  
**Row Color:**  
**Font Weight:**

FreeSans  
10 pt  
Black  
Light Gray 2  
Bold

Table Heading Row	Value
Font Type	FreeSans
Font Size	10 pt
Font Color	Black
Row Color	Gray
Font Weight	Bold

Table 1. Table Values

Larger fonts can be used. Modify the table format to your project requirements. Often, lists can be converted to tables.

## 2.4 Capitalization

### Sentence case

Sentence is used for most headings. Heading 1 can be uppercase. Table headings and captions are sentence case.

### Case

The options are:

- Sentence case
- Upper Lower Case
- UPPERCASE
- lowercase

There are several choices. Remember to select the type of case for headings and text for use in content, to keep the documentation consistent.

## 2.5 Spelling

FAQ Linux and R00T magazine are US based and uses US English in documentation. The documentation spellings may be edited based on the location for release.

## 2.6 Dates

Date format is set per project. In most cases, the date format is:

```
%Y-%m-%d-%H:%M:%S  
2020-07-09-09:14:22
```

Do not abbreviate days or months when written.

**Correct:** January

**Incorrect:** Jan.

Take global date formats and time zones into consideration when reaching global audiences.

## 2.7 Lists

When creating content for the web, remember to use enumerated lists over entering numbers directly for accessible friendly content.

### Numbered or Ordered

Use numbered lists to indicate order. There is never a list of 1.

**Correct:**

1. Open the document.
2. Edit the content.
3. Save

**Incorrect:**

1. Open the document.

### Bulleted or Unordered

Use bulleted lists to indicate a list without a specific order. There is not a list of 1. Watch for “stray bullets” or areas of content formatted with the bullet formatting but has no text.

**Correct:**

- bread
- peanut butter
- fluff

**Incorrect:**

- bread

## 2.8 Numbers in text

For matters of style, choose between whether the numbers in text will be written out or in numeral format. Whichever makes sense for the project is the best fit. Remember, creating a style guide and setting style guidance prior to creating content will potentially save time during the content creation process.

Avoid starting sentences with a numeral.

Use textual content over numerals for numbers under 10.

Use common sense when using numbers.



**Five of six** developers prefer bash.

Over **3,000** Debian developers were surveyed about the use of twm over gnome.

## 2.9 Front Matter

### Title page

A title page is the introduction to a guide or book. A title page typically includes:

- Title
- Author
- Publisher/brand

### Copyright Notice

This will typically include a notice of copyright, the copyright owner and ISBN, if published.

The copyright notice will usually include the country the book is manufactured with specific terms or Limitations of Liability.

### GNU Linux Manual of Style

Copyright (c) 2020 GNU Essentials, FAQ Linux, A-Z Tech Writing, Queen Creek, AZ

ISBN: Number here

Manufactured in the United States of America

You may distribute it and/or modify it under the terms of the GNU Free Documentation License (GFDL).

**Trademarks:** Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

### Dedication

The dedication font style will vary based on the project or organization.

### About the Author

Information about the author is provided here. Bold the first instance of the author's name.

## About the Editor

Information about the editor is provided here. Bold the name of the editor's name.

## Acknowledgements

If there are any acknowledgments, provide these here.

## Table of contents

Your preference. Usually generated using Styles.

## Preface or Abstract

Your preference

## Other

Other front matter items include dedication, notices, disclaimers, etc.

## 2.10 Back Matter

Back matter includes items found in the back of the book such as Appendix, Index, Glossary, and Bibliography. Decide for the project style which format of Appendix to use. For FAQ Linux, use capital letters such as:

Appendix A. man pages

Appendix B. logs

Appendix C. Common Words

Appendix D. Common Trademarks

## 2.11 Cross References

Use cross-references to link to other material within the documentation. Create a support and maintenance plan or workflow to maintain cross-references.

## 2.10 Table of Contents and Index

A table of contents assists the reader with navigation. An index is also useful for finding information in documentation. If the index is easily generated and maintained, this is a useful addition to any guide.

# 2.11 Measurements

Set standards for measurements with consistency. Examples are found in the Measurement Abbreviations table.

Table 2-1. Measurements Abbreviations

Measurement	Abbreviation
Kilobyte	KB
Kilohertz	kHz
Gigabit	Gb
Gigabyte	GB
gigahertz	GHz
megabits per second	Mbps
Megabyte	MB
megabytes per second	MB/s
megahertz	MHz
Petabyte	PB
terabyte	TB

# 2.12 Versions

Select version control and version numbering. Kernel and code version standards are set by the projects. An example is the Debian project version guidelines. Prior to release, the version is 0.x. After release, the version is 1.x and above. Documentation version control using similar numbering is recommended.

## Chapter 3. Best Practices

## 3.0 Paths and Permissions

The common issues in documentation or when working with GNU Linux falls into 3 categories:

- Paths
- Permissions
- Dependencies

### Permissions

#### Group, user

In documentation, the user may need to run commands or execute files as root. The documentation must be clear and easily follow which permissions are needed.

#### Use chmod

In order to run scripts, users need to chmod the script setup.sh first.

Veteran GNU Linux users already know this. However, this may not be obvious to new users. Create a reusable blurb guiding users to chmod. This content can be reused each time.

Before running the script make the script executable by running:

```
chmod a+x nameofscript.sh
```

## 3.1 Dependencies

### In Scripts

When working with developers or scripts, indicate the manner for installing dependencies in the style guide – code section. Some projects call a list of dependencies rather than explicitly declare the dependencies within the script. This way, when dependencies change, the script remains the same but the dependencies file called by the script will change.

## 3.2 Links

Guidance to other information does require some maintenance and support.

## Include information about the URL

Always include information about the URL as the link to a 3<sup>rd</sup> party may change.

**Correct:** Display the title of the content and link

For more information about Free Culture works, see the blog post, FOSS Content Creator Series: Is your content considered "Free Cultural Works"?, at:

<https://software.intel.com/content/www/us/en/develop/blogs/approved-for-free-culture-works.html>

**Correct:** Display the title of the content linking

For more information about Free Culture works, visit [FOSS Content Creator Series: Is your content considered "Free Cultural Works"](#) in the developer zone.

**Incorrect:** No information about the link with period directly after the URL

For more information about Free Culture works, visit [here](#).

## Avoid ending a sentence or placing a period directly after the URL

In the incorrect example, the link will work as the period is not included in the URL. Careless formatting during the publication process may make the URL or link unreachable.

**Correct:** Content after link

For more information about Free Culture works, visit [FOSS Content Creator Series: Is your content considered "Free Cultural Works"](#) in the developer zone.

**Incorrect:** Period directly after URL

For more information about Free Culture works, visit [FOSS Content Creator Series: Is your content considered "Free Cultural Works".](#)

## Use correct language. Avoid “on” when “about” can be used

**Correct:** Use **about**

For more information **about** Free Culture works, visit [FOSS Content Creator Series: Is your content considered "Free Cultural Works"](#) in the developer zone.

**Incorrect:** Using **on**

For more information **on** Free Culture works, visit [FOSS Content Creator Series: Is your content considered "Free Cultural Works"](#) in the developer zone.

## 3.3 Code

Formatting of the code itself is usually developer choice. Some C developers format using K&R.

Some use other formatting. Python programmers may use the python style guide.

Spaces or tabs? Kernel developers may use the kernel guide.

This section offers guidance for placing code in documentation, not formatting code.

Often tedious commands are inserted in documentation one command at a time. This could be improved by providing a script. Windows writers or developers may not be as familiar with running commands or working in the shell. Limited experience with bash will slow down the process, requiring the developer to do more work. This could end up costing the project or company more money. Where efficiency is imperative, use an experienced GNU Linux Technical Communicator/Content Creator.

When presenting commands like this, remember to format the commands properly with functional dashes. Remember to include only the command in the copy code snippet (no results). Do not include command prompts in copy code snippets.

Remember, offer information about the commands where this makes sense. In other words, offer some information.

**Incorrect:** Run **make to make** the application.

**Correct:** Run **make to build** the application.

## General guidelines

Code snippets or examples are a necessary component for tutorials, application notes, and demos. Often code is presented in Courier font.

Presenting functional code snippets with copy code functionality is an important task to undertake. The way code snippets are presented will be used for some of the following:

- assist reader work through a demo
- assist reader understand the code involved
- establish credibility
- establish reliability
- build relationships with other developers

The content creator may not be familiar with GNU Linux development or the community. However, what the author presents in code and how code is included is an essential part of building a community and moving your project forward.

Other considerations when writing for developers includes whether to use proprietary products, or respect freedoms and privacy. Community culture is important when writing for GNU Linux.

### **Guidance - Per GPL 1.3:**

“If your document contains nontrivial examples of program code, we recommend releasing these examples in parallel under your choice of free software license, such as the GNU General Public License, to permit their use in free software.”

## **Commands**

Many applications, tools and utilities are run as commands at the shell. There are many available GUI tools. However, using the shell is a lot faster and you can monitor progress in the shell.

### **Text with Code**

Insertion of text with code or insertion of code within text is distracting and can be frustrating.

#### **Correct:**

You are ready to install! Run the command to install midnight commander.

```
sudo apt install mc
```

#### **Incorrect:**

You're ready to install! Type



```
sudo apt install mc
```

and press Enter. This will install midnight commander.

The incorrect example above is not correct for the following reasons:

- uses contraction
- breaks up instructions with command
- instructs users to “**type**” and “**enter**” instead of actual action of running a command

## Applications, Tools, Utilities

These applications, tools and utilities are not called, titled or referenceed as “ <appname> Command Line application”.

### Example:

If we run ffmpeg at the command line, this is not considered a cli app. In the text we do not add “command line” to the name of the application. When working with novice GNU Linux developers, the technical writer must relay information important to documentation and be aware of jargon and culture.

**Incorrect:**    ffmpeg command line application

**Correct:**     ffmpeg

In fact, there may be an application created for GNU Linux that opens a shell and runs. However, this is not typical. That type of application may be called or title “unique command line application”.

## Flags, Options or Args

Listing flags available or common to the application may be useful for the reader. Not everyone understands how to use a man page. Your project may have a man page, a reference doc or possibly use a help option to list commands. Either way, listing flags in documentation is best done by using a table.

### Example: Commands one at a time or as a script

Often, instructions will include many commands throughout a document. While the instructions are meant to lead the reader to tediously run one command at a time, a script included with the documentation, especially for web content is recommended.

## Example: One command at a time.

First update and upgrade.

```
apt install -y update && apt install -y upgrade
```

Use these explicitly declared packages in this command to install depends.

```
apt install all these packages -y
```

See best practices for more information about using a file including all the depends with a script and why, explicitly declaring these one by one is not efficient.

## Code snippets

When creating documentation with code snippets, execution of the commands is vital. Include a file to download all commands or a script where possible. Make commands functional when pasted.

- command prompts in code snippets
- wrong non Posix dash in code snippets
- results in code snippets
- command prompt in copy code as root while requiring sudo
- wrong quotation mark
- too many comments in copy code snippets

## Example: Command prompts in copy code snippets

When command prompts are copied in copy code snippets, the command will fail. This is a waste of the developer time, often considered an inconvenience or inconsiderate. When an individual does this, the community or developer may be more “forgiving” than when a company does this.

**Correct:**     `apt install mc`

**Incorrect:**   `# apt install mc`  
              `$ apt install mc`

## Example: Wrong or not POSIX, not functional dash in code snippets

When the content creator uses Windows or LibreOffice, the not functional dash can easily be inserted into GNU Linux commands. This dash will not work in the shell or at the command line.

**Correct:**     `apt install mc -y`

**Incorrect:**   `apt install mc -y`

**Example: Command prompt in copy code as root while requiring sudo**

Consider the situation - would you use sudo as root? In what case? In this case?

**Correct:**     `sudo apt install mc`

**Incorrect:**   `# sudo apt install mc`

**Results**

Do not include results in copy code snippets.  
When displaying results with the command, if this is in a copy situation, this is not recommended.  
Depending on the project, use a table or separate commands from results. Clearly present results from a command.

command	result
lscpu	Architecture:            x86_64 CPU op-mode(s):         32-bit, 64-bit Byte Order:             Little Endian CPU(s):                 4 On-line CPU(s) list:     0-3 Thread(s) per core:     1 Core(s) per socket:     4 . . .

The following are results when running the dpkg command. If the system has midnight commander installed, this will display in results as installed.

**Correct:** Separate command from results  
Command to check if midnight commander is installed.

`dpkg --get-selections | grep mc`

## Results

libmcrypt4	install
mc	install
mc-data	install

**Incorrect:** including results in copy code snippet  
Command to check if midnight commander is installed.

```
dpkg --get-selections | grep mc
libmcrypt4      install
mc              install
mc-data         install
```

## Example: Wrong quotation mark

When the content creator uses a text editor, often quotation marks will convert. One method for applying quotation marks in code to a text editor is:

Copy the code from an IDE and paste the code directly into a text editor without making edits to the code.

**Incorrect:** ``throw`` or `'throw'`

**Correct:** `'throw'`

## Bulleted code snippets

There are rare situations where code snippets may be a bulleted list.

Include in the “lists” section for unenumerated lists, the guidance for bulleted lists.

For the purposes of creating content for R00T or FAQ Linux, do not place code in lists unless there is a really good reason.

## Error in result

Errors in results need troubleshooting information. Do not include an error in a result within a copy code snippet.

**Example: Including errors in copy code snippets.**

**Incorrect:** Error included within copy code snippet

```
apt install mc
E: Could not open lock file /var/lib/dpkg/lock-frontent - open (13: Permission
denied)
E: Unable to acquire the dpkg frontend lock (/var/lib/dpkg/lock-frontent), are
you root?
```

**Correct:** No error in copy code snippets

```
apt install mc
```

## No gutter numbers for commands

Distracting gutter number for commands do not belong in copy code snippets or in examples in GNU Linux content.

In some cases, such as Drupal Syntax Highlighter, the gutter number is not copied with the code in the snippet when the user copies the command. However, the number to the left of a single command is distracting and not recommended.

In fact, do not place gutter numbers to the left of single commands run or executed at the terminal, command line, or shell.

**Incorrect:** Gutter numbers to the left of commands in copy code snippets

```
1 apt install mc
```

**Correct:**

```
apt install mc
```

## Configuration files

Guidance to edit config files are common. This guide recommends creating a backup of the original config file and running commands to edit config files.

## Inform users to make an orig or backup of the config file

To make a simple backup of the original config file, instruct users to run a copy command. Create a reusable blurb for your project such as the blurb found below.

Create a backup of the original file prior to editing the config file by running:

```
sudo cp filetoedit.config filetoedit.config.orig
```

## Inform user to edit file

The information for editing a file may differ. Running a command using bash is highly recommended for developer experience. An example is replacing content in a config file or appending content to a config file. To append at the end of a file, offer a command to the user instead of instructing users to manually edit the config file, where possible.

```
echo "this line" >> filename.cfg
```

## Example: Command Prompts, Comments, Variables

Usage	Description
#!/bin/bash	Shebang
# Author:  marcia 'aicra' wilbur # Usage:   grep character path/to/*.md # Example: grep - filename.md	Comment
result=\$(grep - filename.md) echo \$result	Variable
aicra@faqlinux:~\$	Command Prompt - user
root@faqlinux:~#	Command Prompt - root

## 3.4 Audience and Tone

Tone is very important in documentation. Never write an article or tutorial like an advertisement.

Technical marketing may have good input and manage company branding with a marketing communications workflow. However, writing articles like an ad, shilling articles, paying for articles or content without transparency is never recommended. Be transparent. Create good content. Keep ethics in engineering principles in writing as well.

- Keep content informal, not casual.
- Clear
- Concise

In summer 2017, Arizona State University held a Marketing Communications day or communications camp at the Polytechnic campus. During this event, the keynote speaker stated, data showed our “students like it when we seem sincere.” This part of the presentation was centered around the need to “seem sincere”. What about, “being sincere”! When you write, do not write for an ad or to market for the sake of marketing.

- Be sincere.
- Be transparent.

Define a primary and secondary audience to set the voice and tone. See chapter 1 for the template for audience analysis. Define the tone based on the audience.

### Tone Guidance – Google Dev Style

While we do not entirely agree with Google Style, the guidance for tone is sound advice. For some reason “aim” is used a few of times and while we do not recommend using “aim” or starting sentences with “But” - the overall tone guidance is nice. At FAQ Linux, we want the authors to “be human”!

The following is tone guidance from the Google Developer Style Guide and is licensed under Creative Commons Attribution 4.0 License and the code is Apache 2.0 License.

Aim, in your documents, for a voice and tone that's conversational, friendly, and respectful without being overly colloquial or frivolous; a voice that's casual and natural and approachable, not pedantic or pushy. Try to sound like a knowledgeable friend who understands what the developer wants to do.

Don't try to write exactly the way you speak; you probably speak more colloquially and verbosely than you should write, at least for developer documentation. But aim for a conversational tone rather than a formal one.

Don't try to be super-entertaining, but also don't aim for super-dry. Be human, let your personality show, be memorable; you can even be a little funny now and then. But remember that the primary purpose of the document is to provide information to someone who's looking for it.

Remember that many readers are not native English speakers, many of them come from cultures different from yours, and your document may be translated into other languages.

---

Aside from using guidance for tone from Google, you can base your style guide on other style guides and build from there – in the same way you would build a custom distro!

There were items listed in the Google style we do not agree with. In fact, we didn't even agree with the title use of “where”. Those items are listed in the table, **Google: Some things to avoid where possible.**



Google Guidance	FAQ Linux Guidance
Buzzwords or Technical Jargon	<b>Disagree</b> - culture sensitivity and “street cred” usage
Being too cutesy	<b>Agree</b> , but does Google practice this?
Ableist language or figures or speech	Depends.
Placeholder phrases like “please note” and “at this time”	<b>Disagree</b> - upcoming information and notes are important in development. Be honest overall. No smoke and mirrors. No vapor.
Choppy or long-winded sentences.	<b>Agree</b> - remember the tech writing Cs Clear, Concise, Credible
Starting all sentences with the same phrase (such as You can or To do).	<b>Agree</b> - but practice what you preach, Google!
Current pop-culture references	<b>Disagree</b> - content maintained correctly can use “current” cultural terms and references. In free and open source, community and culture this is huge.
Jokes at the expense of customers, competitors, or anyone else.	<b>Moderately Disagree</b> - as long as it is in good taste and appreciated by a friendly competitor. <b>Example:</b> I don’t do Windows! We also welcome the use of M\$.
Exclamation marks, except in rare really exciting moments.	<b>Disagree!!!!</b>
Wackiness, zaniness, and goofiness.	<b>Disagree</b> - depends on content
Mixing metaphors or taking a metaphor too far.	<b>Agree</b> - being honest is good, clear metaphors is how some of us communicate!
Funny lines that aren't closely related to the topic, or that require a lot of off-topic verbiage, or that obscure information.	Funny lines? Like ~~~~~? <b>Disagree</b> – fun is good!
Internet slang, or other internet abbreviations such as tl;dr or ymmv.	<b>Disagree.</b> Use acronyms and abbreviations. If there is a concern the audience does not know the term, add a terminology table in the introduction or overview section.

Google Guidance	FAQ Linux Guidance
Phrasing that denigrates or insults any group of people.	<b>Agree</b> - to a point. “Any” goes a bit far. Too general. One would hope as a writer denigration would be left out. Makes you wonder: WHY this is in Google’s style guide! WHAT happened? Insulting proprietary heathens, code of conduct enforcers, “cancellors” and fashionable open source or <b>fauxpen</b> source is encouraged for R00T magazine journalistic articles. Insults and content denigrating groups of people or users in user guides or training is not recommended! Let's do something positive in the culture war.
Using phrases like simply, It's that simple, It's easy, or quickly in a procedure.	<b>Agree.</b> Avoid “simply” and “easy” or “easily”. Also avoid “roughly”, “complex” where you can. Use “quickly” when the process is quick. Simple is relative. Time is measurable based on ability also, but can be generalized in approximate measures.

## 3.5 Grammar

### Any, All, Everything, Nothing

Do not use generalizations.

### Contractions

Avoid contractions.

In the Google Style, notice the use of contractions. Contractions are not recommended for technical documentation. While some style guides recommend contractions, this is not recommended in this style guide. We do not recommend.

**Correct:** Do not use contractions!

**Incorrect:** Don't follow Google's direction

## 3.6 Punctuation

Aside from specifying punctuation rules of thumb for a project, watch for “random” or “stray” punctuation, especially in code snippets. Use a content creator who can catch any random punctuation. In one recent case, a random hyphen was found after .sh in a command. Another issue is “stray periods” after commands or code.

**Incorrect:** `sudo ./runthis.sh -`

**Correct:** `sudo ./runthis.sh`

**Incorrect:**

To view the built-in dev-server, point the browser to <http://localhost:8000>.

**Correct:**

Open a browser. To view the built-in dev-server, visit:

<http://localhost:8000>

# Commas

Commas are project specific. A project may use the serial or Oxford comma. Other projects may choose not to use the Oxford comma.

## Serial or Oxford Comma

The serial comma uses commas for this, that, and the other.

## General Comma Usage

Use a comma before “and”, “or” and “but” when the following is a sentence.

**Correct:** Insert the microSD card into the slot, and start the Raspberry Pi.

## Single Commas

Use single commas with city and state.

**Correct:** Visit Mystic, Connecticut this summer for delicious clam bellies.

# Period

Avoid using periods at the end of commands or directory paths.

Decide whether to use periods at the end of bulleted or enumerated lists.

# Hyphens and Dashes

<b>hyphen</b> The POSIX hyphen is used in commands	-	apt install mc -y
<b>en dash</b> used with time periods or range used as a minus sign	—	15–20 minutes –12
<b>em dash</b> used to emphasize a section of a sentence that may otherwise be in parens or parenthesis.	—	There are several options — hyphen, en dash, em dash — available when writing documentation.

## Exclamation Point

Use these where needed. Our content and publications audience appreciate a casual tone. Other guides advise against exclamation points.

Seriously!

## Pipe

### What is it?

Pipe |

Used in content as a verb or noun.

### How it works

The pipe character is used in commands to send data from a program.

### Example

Pipe into grep to see which OpenCV tools are installed.

```
dpkg --get-selections | grep opencv
```

## Colon

When using a colon with a note, do not bold the colon.

**Note:** This is an example.

## Quotation Marks

Use correct quote marks within code.

This is very important when working with bash and python.

There could be conversions from straight quotes to other non functional quote marks. Watch for this.

A thorough check could be part of the editing workflow.

## Apostrophes

Avoid using apostrophes in a way to personify inanimate objects.

**Correct:** The code was found on Joe's computer.

**Incorrect:** The computer's hard drive included the code.

## **Chevrons**

Use correct chevrons and do not edit in chevrons in code unless the code chevrons are not correct.

**Correct:** `dpkg --get-selections >> installed`

## **Parens**

Select how parens are used within the project. The first use of acronyms often use parens with the full phrase with the use of the acronym after.

## **Slash**

Use the correct slash in paths and commands. For other operating systems, the slash used with paths and commands are different from paths in GNU Linux.

**Correct:**

`cd /etc/apt`

**Incorrect:**

`cd \etc\apt`

Slashes are also used in bash and the correct slash must be indicated for scripts and commands.

## **3.7 User (Normal User, Root User, End User)**

### **User**

User is a good description for users.

### **Normal user**

Never use "normal user".

## Developer

Developer is a good description for developer users.

## End User

Personal preference. Some projects use the term “end user”, while some do not.

## Root User

Do not use “root user”. Instead instruct the user or reader to become root or run as root.

## 3.8 Naming (example: Pop OS! Greek translation)

When naming your project or product, remember to research the name. Some past examples are “Nova” and “Pop OS!”

In Greek, Pop OS! Translates to “ass”.

**Note:** Distros like Pop OS! are “trademarked”. Therefore, if you like the look and feel of the OS, change the plymouth theme, add your branding and create your custom iso or image. Anyone can customize a distro – especially Debian based distros.

## 3.9 Communications and Contents

### Please

Do not use the word “please” in documentation. Using imperative or direct language is important.

- Connect the servo.
- Program the Arduino Nano.
- Upload the code to the chip.

### Working with Engineers

In a factory setting, there was a cart with a printed page on the flat top.

**Example: Please do not place anything on this cart!**

This was not readable because there were too many items, including acetone bottles, on the cart.

When the technical writer informed the mechanical engineer about this issue, the technical writer recommended removing the word “please” from the notice.

The mechanical engineer replaced the cart with a slanted cart, eliminating the need for any notice.

Technical writers can communicate root cause, observations and work with engineers and developers to build solutions.

**Solutions = right people, right skills, right tools**



## Chapter 4. Common issues

In documentation, sometimes bad characters are inserted into the process. The characters are non-functional. See information about converting processes.

Additionally, with the need for more documentation in corporate and other projects, command prompts were riddled with errors by authors and writers not validating against documentation.

While validation does require time and resources, one pass is recommended.

## 4.0 Acronyms

First time use of an acronym is spelled out and where applicable is included in a table. An example is provided.

### Example: First use of Acronym

- Correct:** Many organizations are considering privacy matters for Artificial Intelligence (AI) and recognition as a service.
- Incorrect:** Many organizations are considering privacy matters for AI and recognition as a service.

### Example Table: Acronyms and Abbreviations

Acronyms and Abbreviations	Description
AI	Artificial Intelligence
API	Application Programming Interface
CLI	Command line interface
DMCA	Digital Millennium Copyright Act
GNU	GNU's not Unix
IoT	Internet of Things
ML	Machine Learning
OS	Operating System

## 4.1 Internet of Things or IoT

### sda or sdX

When authoring instructions, never explicitly declare a drive, especially with a command like dd. This is a courtesy to users who may simply copy and paste commands in instructions.

#### **Correct:**

Copy the SD to your local machine. Using dd and the status=progress flag, you can view the copying status while copying.

Use sudo or switch to superuser to run these commands.

As root:

```
dd if=/dev/sdX of=imagename.img status=progress
```

After the image is copied locally, force a sync of any I/O.

As a precaution, use sync.

```
sync
```

#### **Incorrect:**

```
dd if=/dev/sdc of=imagename.img status=progress
```

Never explicitly declare the drive.

### Edge Computing

When writing about a topic like Edge computing, a brief overview of Edge can establish credibility. Multiple articles exist about Edge computing and cloud, but never describes the difference.

## **Edge Third Party**

Avoid using any Linux Foundation projects, tools or platforms. In fact, avoid 3<sup>rd</sup> party websites and platforms where possible. When the third party website breaks, so will your docs and perhaps reliability in your project may suffer. In documentation, ensure proper use of Trademark and branding for organizations like Linux Foundation using trademarks.

## **4.2 Cultural issues**

Cultural knowledge or cultural sensitivity is important in documentation.

### **Proprietary v. Not Proprietary**

Do not bundle a GNU Linux Operating System with a Proprietary System

### **Two or more Distros**

Documentation including 2 or more systems can be confusing, and a developer experience challenge.

Make sure to separate the two systems clearly.

### **Order of Operating Systems**

Listing operating systems in alphabetic order is recommended. Keep documentation consistent with listing operating systems.

- GNU Linux
- Windows

### **Adding the full Operating System name**

There are some cultural sensitivity when leaving GNU out of GNU Linux. List GNU where GNU is used.

### **Electron apps**

Avoid recommendations or instructions using 3<sup>rd</sup> party or non-free applications/tools and utilities.

### **Avoid recommending software**

Do not write advertisements or base articles on advertisers. Avoid bias.

Give the user choices and options where applicable, while maintaining clarity. However, when a tool, utility or product performs best for the job at hand, list this tool.

**Default installed in the distro v. Install a 3<sup>rd</sup> party app**

When a distro has a tool or utility to perform a task, there must be a very good reason to install an alternate tool. For example, guidance to install etcher is an extra step to simply using an image burning tool already installed by default in a distro.

**No Shills**

Do not accept gifts, money, conference bribes, or any quid pro quo situation for writing “fashionable” or “favorable” articles. When advertising a product for a company or project, be transparent.

**Inclusion**

As a free and open community, we are already all inclusive. Use non-bias language in documentation.

Do not use pronouns or second person. For R00T stories, use first person. Avoid third person pronouns regarding gender. Gender-neutral.

Suggestion	Replaces
Built-in	native
Chairperson, chair	chairman
Deny/Allow (describe the list) Denylist/Allowlist (not preferred) Refused/Permitted	blacklist/whitelist
People, humans	mankind
primary/secondary main/secondary host/device	master/slave

## 4.3 Text Editors

Remember, the use of IDEs and text editors are user's choice. Do not include instructions in vi when the user base may include emacs users. There are multiple editors available and many different "camps". The following editors may be used by a variety of users.

- emacs
- vi
- nano
- jupyter notebook
- atom
- gedit

Be aware of the color configurations when taking screen captures.

**Example:** Do not use red callouts with a purple text displaying in gedit.

Use the color wheel to find complimentary colors.

- Yellow and purple
- Blue and orange
- Red and green

## 4.4 Spacing

Do not waste real estate. Too much leading or spacing above or below a heading can be distracting. Linear websites with a lot of space require scrolling and navigation. Make spacing even and sensible.

## 4.5 Clear Communication

Avoid the following words in content.

- |               |            |
|---------------|------------|
| • better      | • ought to |
| • it          | • should   |
| • needs to be | • that     |

1. Do not use "it"
2. Avoid "which" and "that"
3. Clean up language - "the tutorial" "on"

- 4. Use variables like \$HOME or \$INSTALLDIR where it makes sense over a path
- 5. Break down long commands for users. A table works well.

This command writes the image to the target device.

```
sudo dd if=imagename.img of=/dev/sdX status=progress
```

Command	Usage	Description
sudo	sudo	Require root
dd	dd	dd command – convert and copy a file.
if	if=imagename.img	Defines the origin. In this case, the image file to be written.
of	of=/dev/sdX	Defines the target, in this case, the drive. An X replaces a drive letter. Use df -h or fdisk -l to determine your drive.
status	status=progress	Displays the progress until finished.

## 4.6 Multiple Operating Systems

When writing about different operating systems, give equal time to both. If you do not have equal documentation for both operating system types, this is a gap. Separating instructions is recommended.

Instructions for the following systems:

- Debian
- Windows
- MacOS

One exception to separation may be if the documentation compares the operating system instructions. Simple instructions may also be clear.

However, lengthy documentation for each section is not recommended. In this case, separate the sections. If the user navigates to the wrong section, this can waste time. Linear pages can be frustrating when attempting to install, configure or run instructions.

When including information about installation, tutorials and where to find the developer guide, match the content for all operating systems when you can. Use some ordering as from a user experience perspective, offering instructions for several operating systems can be a challenge. In some cases, different distros can be a challenge. However, documentation for different distros can be very clear by labeling the instruction set by distro. Give each distro a heading or some emphasis.

## **MorphOS**

Instructions

Amiga

Pegasos

## **RedHat**

Instructions

x64

ARM

Lengthy instructions for separate operating systems can be unclear. Clear instructions are important for the audience to quickly go to the section or instructions.

## **4.7 Website Images**

### **Size**

Add images of a consistent size. This can be configured in Drupal or WordPress if you are using either of these systems.

### **Zoom**

Zoom features are recommended. A zoom function/magnifying glass would be nice but not sure how your system or CMS manages this.

An option may be to link to the full version of the image. For example, if the user clicks on the image, this trigger will open a page with a larger version of the image.

### **Clear**

No blurry images.



## Crop

When cropping images, maintain a consistent crop area. Example, include the scroll bar in all or crop the scroll bar from all.

## Favicon

Check your faviocon on different browsers and take precautions with security issues

## 4.8 Infographics

Creating infographics for projects can be as simple as using a common template in GIMP or another program like Apache OpenOffice Draw. Alternate methods include using a third party platform with design templates.

Infographics are a great way to offer visual content to users. Audiences include visual learners and infographics may offer a clean way to display content. Remember to include a detailed description in audio or text for users.

## Print

150-300 ppi is recommended, depending on the size of the printed infographic.

## Web

Remember web content requires 72 ppi.

## 4.9 Key Commands

Ctrl+Shift+Alt+G

Ctrl+fn+F4

**Note:** In writing fn key is great. When you speak this out loud – the “fn key” can be misunderstood by the person receiving audio communication.

## 4.10 FAQs or Troubleshooting Tips

Where there may be a need for a Frequently Asked Questions or Troubleshooting tips, include this in the documentation. Often this will be an appendix or at the end of a guide. There may be tips

throughout instructional documentation. For web content, an accordion or drop down list may be available.

## **Reading and Understanding logs and errors**

Understanding logs and errors is a great way to create a troubleshooting section, resolve errors and improve documentation. Qualified free and open source software content creators will assist in documenting Frequently Asked Questions, bug reports and errors. There is a difference between a configuration and a bug. Be transparent.

# 4.11 Command or brand

In technical communications, the difference between command and brand may not be clear to writers not familiar with the command line. In one case, a content creator placed a trademark symbol next to a command (public facing docs). To the informed or experienced, this is a clear indication of the lack of qualifications to work on GNU/Linux documentations. In such cases training or reassignment is recommended.

command	Brand
docker ps	Docker®
ffmpeg -i input.mp4	FFmpeg® FFmpeg is a trademark of Fabrice Bellard, originator of the FFmpeg project.

## Chapter 5. Documentation Considerations

# 5.0 Management of Information

One of the main considerations for content creators is management of information. In the past, organizations had document management offices, librarians or other departments specifically for management of information. Some projects may not have an information management plan.

## 5.1 Management of Information Plan

For companies, lack of information management comes with a high price in both time and money. Implement a private server using samba, Plex, or NextCloud to store files and content. For free and open source software projects, this can be as simple as setting up a git server and keeping project documentation, videos and collateral in a repo or NextCloud. The content creator must know where to place files for future reference and pass off. A backup plan is also a consideration.

## 5.2 Management of Information Plan Sample

Table 5-1. Content Management Plan

Project Files	Filename	Location	Settings	Owner
Raw Video	vid-raw.kdenlive	Media server + location	fps	mkw
Published Video	vid-pub.mp4	Media server + location	fps	mkw
Raw Audio	audio.aup	Media server + location	Hz, Stereo	mkw
Published Audio	Audio.mp3	Media server + location	Hz, Stereo	mkw
Raw CAD file	untitled-cad.blend	Nextcloud server + location	PLA	mkw
Published CAD file	untitled-cad.stl	Nextcloud server + location	PLA	mkw
Raw Image	myraw.xcf	Samba server + location	ppi	mkw
Published Image	myraw.png	Samba server + location	ppi	mkw
Guides	mkdocsfiles.md	Devtools gitlab + location	mkdocs	mkw
Published Guides	getstarted.pdf	Devtools gitlab + location	size	mkw

## 5.3 Content Creator Toolbox

Using existing GNU Linux tools for creating content.

*Table 5-2. Content Creator Tools*

x2go	X2Go	Remote deskop application
GIMP	GNU image manipulation program	Graphics Editing
mediawiki	Media Wiki	Wiki for collaboration
git	git	Collaboration and version control
vi	vi	editor
blender	Blender	Editing Video, CAD design
vlc	Video Streaming Server	Video editing
scrot	SCReenshOT	screen capture in the background
irc	Internet relay chat	chat
xvidcap	Xvidcap	Video capture tool
simplescreenrecorder	Simple Screen Recorder	video capture tool
obs	Open Broadcasting Studio	Video capture tool
wordpress	WordPress	Content Management System
drupal	Drupal	Content Management System
Moodle	Moodle	Learning Management System
nano	Nano's ANOther editor	quick editing - free Pico clone
kdenlive	KDE Non-Linear Video Editor	quick video editing tool
emacs	Emacs	editor
vnc	Virtual Network Computing	remote management
bash	Bourne Again SHell	shell and command language
LibreOffice	LibreOffice	Office applications: editor, spreadsheet, presentation

openssh	SSH	Secure shell
nextcloud	NextCloud	Private cloud server
slack	Slack	Collaboration like irc

# Bash History

.bash_history		History used for documentation
---------------	--	--------------------------------

## 5.4 Documentation Types

Depending on the project, choose which documentation type to create the docs. In many cases markdown is used as this is easily converted to HTML and PDF, as well as used in a collaborative environment. Sphinx users may use rst. This is not recommended at this time due to the ease of using markdown for several types of output.

With plain text, no document type is required.

The following are types used in documentation:

- html or htm
- md
- rst
- pdf
- docx
- xml

## 5.5 Website Content

When managing a website, the content can require a lot of storage and archiving. Remember to manage the website content with a fully controlled server or content management system. Using a third party platform, system or server could be costly. However, also remember to manage backups regularly and store content offsite.

## 5.6 Accessibility

Accessibility considerations reach beyond complying with legislation and standards set by recent legal precedence. With regard to websites, consideration of standards is essential to serving the audience or improving the experience.

## Basic guidance

Some basic guidance for accessibility:

- Include Alternative text – images
- CSS included in content
- Form Input Fields with description or labels
- Captions for Videos or transcripts
- Semantic markup (works with assistive devices)

## Font

Font is important when taking accessibility into consideration. Color can impact contrast. Emphasis may not be clear to the visually impaired audience members.

## Font Color

Font color and contrast is a consideration. When the colors are too light, the content may not be readable or viewable by certain individuals.

## Font typeface

Italics

In text, italics is not recommended for several reasons. The content is difficult to read when italicized. An exception is consistent captions. Use bold or another emphasis instead of italics.

Contrast

Contrast makes viewing content difficult. Use contrast testing tools and the color correction recommendations. Participant testing will not always determine possible contrast improvements. Also, some websites offer contrast options for users. A user at FOSDEM recommended a checklist for future releases. Others agree, including the author.

## 5.7 Privacy and Informed Consent – Participant Testing

For the purposes of content creation, keep personal information private where ethical. In other words, do not publish personally identifiable information such as personal address or personal phone number without permission. In fact, when conducting participant testing, refrain from using personal information about the participant unless permission is granted. The privacy template is found below and you can create a simple script for the users to fill out.

The following markdown form example was using in GNU Linux participant testing for a chat client.



# Informed Consent Participant Testing Template

At GNU Essentials, we respect your privacy and this agreement sets terms you are comfortable with.

## Content License for recording:

- ☐ GFDL
- ☐ Public Domain
- ☐ CC

If you have no privacy selections, skip this section.

## Privacy and use:

We like to share results with the project - In this case, You select the terms you are comfortable when it comes to sharing the Participant Capture/recording(s).

## Video Capture recording

- ☐ Only internal to testing - does not include external projects
- ☐ Share recording with the project (Pidgin)
- ☐ Public
- ☐ Other terms:

## Audio capture recording

- ☐ Only internal to testing - does not include external projects
- ☐ Share recording with the project (Pidgin)
- ☐ Public
- ☐ Other terms:

## Webcam capture recording

- ☐ N/A
- ☐ Only internal to testing - does not include external projects
- ☐ Share recording with the project (Pidgin)
- ☐ Public
- ☐ Other terms:

## **Extracted Images from recording**

- ☐ Only internal to testing - does not include external projects
- ☐ Share recording with the project (Pidgin)
- ☐ Public
- ☐ Other terms:

## **Personal information**

- ☐ Do not share my name or personal information
- ☐ Use my alias \_\_\_\_\_
- ☐ Call me anything
- ☐ Other terms:

## **Log Files - Bash history**

- ☐ N/A
- ☐ Only internal to testing - does not include external projects
- ☐ Share recording with the project (Pidgin)
- ☐ Public
- ☐ Other terms:

## **Acceptance of this Policy**

I agree the following terms were not coercive and are the terms under which I would prefer for the content.

## **signature**

name  
date

## 5.8 Security

There will be projects using **old versions** of distros, tools, kernels, and utilities. Some are not recommended by the project itself due to “old age”. One example is scp from the openssh project. Read release notes for more information: <https://www.openssh.com/txt/release-8.0>

The scp protocol is outdated, inflexible and not readily fixed. We recommend the use of more modern protocols like sftp and rsync for file transfer instead.

Another concern is **vulnerabilities**. This is why updating and upgrading the distro release is very important. Using the correct libraries is important. Maintaining dependencies can be impacted by updates or upgrades.

To maintain security, stay on top of current events. The vulnerabilities and bugs are often reported in the distro notifications or mailing lists. One example is mosquito. Using an old version could be a serious security issue.

Also, create backups regularly and have a backup plan. Whether you use rsync, respin or simply tar up the directories, remember the following:

- **Backup** regularly
- Keep more than the most recent backup, especially if you use rsync or respin
- Keep backups securely **offsite**

**Be transparent about security issues** and do not hide behind a “bug bounty” or “bug reported issue”.

An issue is an issue. A security issue, is an issue. Visit the Debian project list below.  
[https://www.cvedetails.com/product/36/Debian-Debian-Linux.html?vendor\\_id=23](https://www.cvedetails.com/product/36/Debian-Debian-Linux.html?vendor_id=23)

## Chapter 6. Legal and Licenses

## 6.0 General Trademark and Copyright information

Remember to respect copyright and trademark/branding with regard to content. Some projects have trademarks and there are legal limitations when using a logo or icon. Remember to stay in line with these guidelines.

Each project is different. Some projects use multiple licenses. One example is GStreamer. Open communication with projects in a respectful manner. Use of casual communication like IRC or slack may provide good results and permission. Always document copyright and trademark communications and use.

A simple asterisk can be used to indicate a trademark.

**Example:** Microsoft\* was a platinum sponsor for CopyleftConf, a Software Freedom Conservancy\* event.

## Non-Disclosure Agreements

While we do not use Non-Disclosure Agreements (NDAs), we realize some projects may require one. No sample is provided for this type of agreement, however. Often non-disclosures are entered into to keep information from being free.

## 6.1 Embargoed Content

Embargoed content is similar to content with entitlements. A project may embargo content until launch or release.

## 6.2 Free Content

Free content would be anything in the public domain or free culture content.

## 6.3 Non-Compete Agreements

When you sign a non-compete, make sure you are current with the laws in your geo. For example, a non-compete may state 5 years before entering in a relevant area. However, the laws for non-compete may only be 3 years.

## 6.4 Documentation Licensing

### The GNU Free Documentation License or GFDL

The GNU Free Documentation License or GFDL is a free content license used by Wikipedia and others. The license is found in the appendix and online at:

<https://www.gnu.org/licenses/fdl-1.3.en.html>

### Creative Commons

Not recommended.

### Public Domain

Releasing content in the public domain is very useful. Remember to inform users the content is in the public domain.

### Code Licenses for Code Snippets and Scripts

Use the code license(s) affiliated with your project or code snippets within the documentation.

#### Example

You may distribute the GNU Linux Manual of Style and/or modify the GNU Linux Manual of Style under the following terms:

#### Code

GNU General Public License (<http://www.gnu.org/licenses/gpl.html>), version 3 or later

#### Content

GNU Free Documentation License (GFDL: <https://www.gnu.org/licenses/fdl-1.3.en.html>)

## 6.5 Debian Documentation Licensing (FREE)

An example of Debian licensing is found in this section. The Debian Reference card content is great, but the layout could use some improvement. However, the Debian content is GPLv3.

This document may be used under the terms of the GNU General Public License version 3 or higher. The license text can be found at

<https://www.gnu.org/copyleft/gpl.html> and [/usr/share/common-licenses/GPL-3](https://www.debian.org/doc/user-manuals#refcard).

Copyright © 2004, 2010 W. Martin Borgert Copyright © 2016, 2019 Holger Wansing Made by:  
<https://www.debian.org/doc/user-manuals#refcard>

## 6.6 RedHat Documentation Licensing (CC by 4.0)

April 2, 2019, there was an agreement regarding licensing according to the commit. Red Hat Community Collaboration Guide Project for Documentation shows CC by 4.0 international. In early 2021, Creative Commons moved to Open source from almost 2 decades of free software. Creative Commons, not recommended for content moving forward.

### **Attribution-ShareAlike 4.0 International**

<https://github.com/redhat-documentation/community-collaboration-guide/commit/4cdec7286c52c3ec2770c377e2cbfde6530adb16>

## 6.7 Ubuntu Documentation Licensing (Copyright notice)

While comparing to the Ubuntu style guide might be useful, Canonical does not show any free content license. The copyright license for the guide does not indicate any freedom.

© 2018 Canonical Ltd. Ubuntu and Canonical are registered trademarks of Canonical Ltd.

Therefore, the guidance from Ubuntu does not seem to be free.

## 6.8 Code License Management

While some projects may look for license management or to organizations to manage the open source definition or represent the project, there are several reasons why this is not recommended. Some reasons include organizations not having the bandwidth to represent, not having the “teeth” to represent, politics and proprietary sponsors. When considering affiliation with certain three letter organizations, proceed with caution.

# APPENDIX A. man pages

## man pages

A man page includes several sections and uses format as presented in the example below.

Section	Required or Optional	Format
NAME	Required	<code>.SH NAME</code> <code>respin \- script to a make bootable, install live cd or dvd</code>
SYNOPSIS	Optional	<code>.SH SYNOPSIS</code> <code>respin backup clean dist [cdf iso] [filename.iso]</code>
DESCRIPTION	Optional	<code>.SH DESCRIPTION</code> Respin is a script used to make a bootable live cd or dvd from an installed Ubuntu system or derivative.
OPTIONS	Optional	<code>.SS OPTIONS</code> <code>.TP</code> <code>.I backup</code> Makes a complete system backup including the user folders. <code>.TP</code> <code>.I clean</code> Cleans the temporary build directory.
BUGS	Optional	<code>.SH BUG REPORT</code> Report bugs to <code>aicra@linuxrespin.org</code>
AUTHOR	Optional	<code>.SH AUTHOR</code> Marcia Wilbur (c) 2014 - 2020
SEE ALSO	Optional	<code>.SH SEE ALSO</code> <code><a href="http://www.linuxrespin.org">http://www.linuxrespin.org</a></code>



## Example man page

This example is the respin man page.

```
.TH RESPIN 1 "June 24 2020"
.SH NAME
respin \- script to make a bootable, install live cd or dvd
.SH SYNOPSIS
respin backup|clean|dist [cdf|iso] [filename.iso]
.br
respin backup
.br
respin clean
.br
respin dist
.br
.SH DESCRIPTION
Respin is a script used to make a bootable live cd or dvd from an
installed Ubuntu system or derivative.
.PP
This manual page documents
.BR respin .
.B respin
Makes a live cd or dvd iso file from and installed system
.SH OPTIONS
.TP
.I backup
Makes a complete system backup including the user folders.
.TP
.I clean
Cleans the temporary build directory.
.SH AUTHOR
Marcia Wilbur (c) 2014 - 2020
.SH BUG REPORT
Report bugs to aicra@linuxrespin.org
.SH URL
http://www.linuxrespin.org
```

## APPENDIX B. GNU X Entries

The following word list includes content and is a derivative of the  
*Bishop Fox™ CYBERSECURITY STYLE GUIDE 2018/06/27 cc by SA 4.0*

**GNU Linux** or **GNU/Linux** is the correct usage, not “GNU or Linux distribution”.

### **Note about Acronyms:**

Acronyms in the word list with full text of the term + acronym in parens requires first use full text with acronym use after.

### **Example:**

A Digital Millennium Copyright act (DMCA) counter-notification template is available.

Send the DMCA counter-notification!

### **Author’s note:**

Word list includes some definitions and examples

Contributions are welcome!

!	The exclamation point or bang.	<b>1Password</b>	Password management software.
@	The “at” sign. Related: email, handle, usernames	<b>2FA or TFA</b>	Two-factor authentication. Related: MFA, OTP
#	The pound sign or hashtag	<b>3DES</b>	Triple DES. A symmetric key block cipher. DES is pronounced as letters or “dezz.”
[ ]	Brackets	<b>3D printing (n.)</b>	
<>	Chevrons	<b>3G, 4G (adj. or n.)</b>	Third- and fourth-generation communications technology. Cell
/	Slash. Avoid using the slash to compare outside of set phrases like 24/7, and/or, client/server, TCP/IP	<b>4chan</b>	Image based bulletin board
\	Backslash.	<b>3Scale</b>	An API management platform.
'	The tic character. Not an apostrophe	<b>7-Zip</b>	An open source file archiver.8-bit (adj.)
<b>1080i, 1080p</b>	Abbreviations for HD video modes that describe the frame resolution and scan type (interlaced or progressive scan, respectively). Pronounced “ten-eighty.” Do not spell out.	<b>2600</b>	A hacker magazine founded in 1984. Emmanuel Goldstein. Yearly conference, HOPE (Hackers on Planet Earth) in NYC. Also a community or series of local clubs
<b>0-day (n. or adj.)</b> A “zero-day” or “oh-day” finding. In formal writing, to use zero-day, previously undisclosed vulnerability, or publicly undisclosed vulnerability.			

# A

## **a, an**

Use “an” when the next word begins with a vowel sound when spoken, regardless of spelling. A Xerox machine

An underlying cause

## **a11y (n.)**

Accessibility

## **abort (v.)**

## **abuse (n.)**

This noun is acceptable in common industry phrases like “application abuse”

Avoid using this when possible

## **abuse (v.)**

This verb is OK in set phrases but do not use it on its own. Try alter, automate, compromise, deface, exhaust, exploit, force, impersonate, intentionally misuse, manipulate, reuse indefinitely, take advantage of, or a context-specific verb.

**Example:** Several people abused the volunteer conference positions to select their cronies.

## **-accessible (adj.)**

## **Access control list (ACL)**

## **access point (AP) (n.)**

## **Active directory (AD) (n.)**

## **Acceptable Use Policy (AUP)**

## **Access Point (AP) (n.)**

## **Adafruit**

Electronics supply – DIY for Makers

## **adb**

1. Android Debug Bridge.

2. command

When using as a command or writing about the command, use a code font.

## **ad block (n.), ad-blocking (adj.)**

## **add on (v.), add-on (n.)**

## **address bar (n.)**

## **ad hoc (adj.)**

This describes immature security infrastructure. In networks (especially wireless ones), ad hoc means decentralized.

## **admin or admin (n.)**

Short for administrator

## **adversary (n.)**

Do not use this term in formal writing; use attacker or malicious user instead in cybersecurity reports or news.

**Example:** I do not consider Smurfette a worthy adversary!

In cryptography, “adversary” has a mathematical meaning, as in GPA: Global passive adversary.

**Advogato**

Online community and social networking site dedicated to free software development launched in 1999. Ranking system with blogs, created by Raph Levine and archived in 2016 in the Internet Archive.

**AES**

Advanced Encryption Standard. Do not spell out; briefly define on first use.

**Agile process (n.)****agnostic (adj.)**

Describes an entity that does not have a preference for any particular product, as in platform agnostic. Corporate jargon; use

**AI (n.)**

Artificial intelligence, often used as jargon to refer to a computer program. AI can also refer to Amnesty International. Always use the full first instance with the acronym. Later reference can use the acronym only, once the term is established.

**Example** Using Artificial Intelligence (AI) models for face re-identification is not recommended.

**Airbnb**

1. Suite of tools to test Wi-Fi network security
2. Lodging reservations

**Aircrack-ng** Suite of tools for testing Wi-Fi network security.

**air-gapped (adj.)**

Air-gapped systems are disconnected from networks(not secure) and the internet.

**Akana**

API management provider.

**alert box (n.)****Alexa**

Amazon AI

**algorithm (n.)****Alibaba**

Online retailer based in China

**alphanumeric (adj.)**

Describes strings that contain letters and numbers

**a.m.**

ante meridiem

Use spaces unless in a date timestamp. Do not edit timestamp information.

Fun fact: 12 Ante meridiem (a.m.) and Post meridiem (p.m.) can represent either noon or midnight, technically. However, often 12 a.m. is considered midnight and 12 p.m. is considered noon. Adding the time zone is also helpful.

**Example:** "4 a.m. GMT." Include the time zone if referring to a testing window or specific event.

**AMA**

Ask me anything

**Amazon Prime**

Amazon Web Services (AWS)

After first use, refer to the services as AWS

**Example:** Set up an EC2 with a database using Debian in Amazon Web Services (AWS).

**analog hole or analog loophole (n.)****and/or**

Depending on your organization usage varies. For R00T magazine, try to avoid using and/or

**Android**

Google mobile operating system

**android (n.)****angle brackets (n.)**

Chevron or [ < ] and [ > ] characters

**AngularJS**

JavaScript framework

**Animoji**

Animated emoji created by Apple

**anonymization (n.)****anonymous (adj.)**

The term origins, according to the dictionary at reference.com, date back somewhere around 1595-1605. As an adjective, anonymous is: Without name acknowledged – such as an author or contributor

Lacking individuality, unique character, or distinction

**Anonymous (n.)**

Anonymous is really a collection of people on the internet who started out as old school irc, USENET, etc. who perform certain tasks, anonymously. Some played pranks on websites, some posted information anonymously. Members of Anonymous participate in Chanology.

**anonymous coward**

Forum (slashdot) posts without login

**ansible (n.)****Ansible**

Stateful configuration management suite for GNU Linux systems

**anti-malware (adj. or n.)****antivirus (AV) (adj. or n.)****Apache Server**

Web server

**Aperture Science**

Fictional research company from the Portal series of video games

**API, APIs**

Application programming interface. How software interacts with other software. Do not spell out.

**app**

**Apple**

Lightning cables, Mac OS X, macOS,  
PowerBook, Siri, WWDC  
Proprietary soup: HW/SW

**application****application security (n.)****Approved scanning vendors (ASV)****AR (n. or adj.)**

Augmented reality

**arbitrary (adj.)**

Of the attacker's choosing, as in "the user would  
be redirected to an arbitrary URL"

**Arbitrary code execution (ACE)****Arduino (n.)**

Open-source electronic prototyping platform  
enabling users to create interactive electronic  
objects such as dancing robots  
Pronounced "ar-dweeno"

**ARM**

This refers to either the Architecture  
Reference Manual or to RISC architecture  
used in microprocessors

**ARPANET**

Advanced Research Projects Agency Network  
Original internet - Do not spell out

**artificial intelligence (AI) (n.)****ASCII**

American Standard Code for Information  
Interchange  
Character encoding standard  
Pronounced "ask-ee"

**asset (n.)**

Assets are systems, software, applications,  
libraries, personnel, equipment, or anything  
else that clients value and want to protect

**ATM**

1. Asynchronous Transfer Mode
2. Automated Teller Machine
3. At the Moment

**at-rest (adj.), at rest**

At-rest encryption  
Data at rest

**attack chain (n.)****attacker-controlled (adj.)****attacker-owned (adj.)****attack surface (n.)****attributes (n.)**

Specification of a value

**ASLR**

Address space layout randomization

**ASN.1**

Abstract Syntax Notation One

**Audacity (n.)**

Free, open source, cross-platform audio software

**audio conferencing (n. or adj.)****audit trails (n.)****\*.aup**

Audacity Project file format

**Augmented reality**

Fictional instantaneous hyperspace

Easy programming, can be used to hide messages

**authentication (n.)****autocomplete (n. or v.)****autocorrect (n. or v.)****autofill (v.)****authorization bypass (n.)****auth (n.)**

1. Authentication (AuthN)

2. Authorization (AuthZ)

Spell out first use

**automation (n.)**

Working independently

**autopilot (n.)****auto-renew (v.)****avatar (n.)****AWS**

Amazon Web Services



## B

**backdoor (n. or v.)**

**back end (n.), back-end (adj.)**

**backported (adj.), backporting (n. or v.)**

**backslash or \**

**backtrace (n. or v.)**

**back up (v.), backup (n. or adj.)**

Very Important! Implement a backup plan

**backward(s) compatibility (n.)**

**backward(s) compatible (adj.)**

Interoperability with legacy or older system

**badput (n.)**

**\*.bak**

File extension for the backup of a file

**Balloon**

Password-hashing algorithm

**bandwidth (n.)**

Speed or capacity of a data network measured in volume over units of time, as in 50 Mbps

**bank drops (n.)**

**barcode (n.)**

**bar mitzvah attack (n.)**

SSL vulnerability named because its security implications were realized 13 years after it first appeared in the codebase

**Base64-encoded (adj.)**

**Base64 encoding (n.)**

Remember, base64 encoding is NOT encryption

**-based (adj.)**

Hyphenate

In the case of a distro being

“TrademarkedXdistro based”, avoid the hyphen to maintain trademark compliance. Ubuntu based.

**baseline (n.)**

**bash**

1. GNU Project shell

Bourne Again Shell, command interpreter

2. programming language

3. Hit hard, bang

**Example:** I released the utility in bash, python and C.

**BASIC**

Programming language

**bastion host (n.)**

Host often used as a gateway to pivot into other hosts

Must be specially hardened

## **BBS**

Bulletin board system  
BCC, BCC'd, BCCing  
Blind carbon copy

## **bcrypt**

Password hashing function  
Pronounced “bee-crypt.”

## **BeEF, BeEF hooking**

Browser Exploitation Framework

## **BER**

1. Bit error rate
2. Basic Encoding Rules

## **Berkeley Software Distribution (BSD)**

Unix-derived operating system

## **best practices (n.)**

Practices that align with compliance guidelines  
or industry standards

## **beta (n. or adj.)**

## **Big Brother**

The symbol of totalitarian surveillance from the  
novel 1984

## **big data (n.)**

## **billion laughs attack (n.)**

1. DoS attack against XML parser
2. 1,000,000,000 laughs :)

## **binary (n. or adj.)**

1. Base-2 number system (0 1)
2. binary executable files

0000 0000 0101 is “5” in base 10.

0000	0000	0101
2048	1024512256	128643216 8421
		4+1=5

## **BIND**

DNS server

## **birds of a feather (BoF) (n.)**

Informal discussion group

## **bit (n.), -bit (adj.)**

As in “a key length of at least 2048 bits” or  
“a 2048-bit RSA key”

When abbreviated, use lowercase b for bits,  
uppercase B for bytes

## **Bitbucket**

Atlassian product for git and mercurial

## **bitcoin or Bitcoin (n.)**

Digital cryptocurrency

## **bit-flipped (adj.), bit-flipping (adj.)**

## **bitmap (n.)**

## **bitrate (n.)**

## **bitsquatting (n.)**

Flip your bit! Registering a domain one bit off  
from a popular domain and waiting for a random  
bit error to redirect the “victim” to the domain.

**bitstream (n.)**

**BitTorrent**

**BlackBerry**

**black box (n.), black-box testing (n.)**

**black hat (n.)**

Attacker or malicious event or user

**Black Hat**

Series of annual security conferences in the USA, Europe and Asia

<https://www.blackhat.com/>

**blacklist, blacklisting (v. or n.)**

Legacy terms

Replace with denylist, blocklist or something similar

**black market (n.)**

Legacy term for unindexed illegal online activity  
Use underground instead

**bleeding edge (n. or adj.)**

**blind (adj.)**

During a blind attack, the attacker is unable to view the outcome of an action.

**bloatware (n.)**

**BLOB or blob (n.)**

Binary Large Object

**blockchain, block chaining (n. or v.)**

**blocklist, blocklisting (n. or v.)**

**blog, blogroll (n.)**

**Bloodhound**

Tool used during security assessments

**Blowfish**

Encryption algorithm

**blue screen (v.)**

**Blue Screen of Death (BSOD) (n.)**

Windows failure

**blue team, blue teaming (v.)**

Blue teams run scenarios to defend a target or environment from potential attackers

**Bluetooth**

Unifying wireless system named after Harald Bluetooth, a Norwegian king

**Blu-ray**

**BMP file, .bmp file**

Bitmap image format

**Boolean operators**

AND, OR, NOT

**boot chain (n.)**

**boot time (n.)**

**Border Gateway Protocol (BGP)**

**Boston Dynamics**

**bot (n.)**

Automated program like a chatbot

**botnet (n.)**

Network of bots sometimes used in ransomware attacks

**branch (v. or n.)**

**breadcrumbs, breadcrumb trail (n.)**

**breakpoint (n. or v.)**

**brick (n. or v.)**

Old heavy cell phone or a dead device  
A bricked device is unrecoverable

**brick-and-mortar (adj.)**

Describes IRL places of business

**bring up**

**browsable (adj.)**

**browser fingerprinting (n.)**

**browser hijacking (n.)**

**brute-force (v. or n.), brute-forcing (n.)**

**BSides**

Global series of security events  
<http://www.securitybsides.com/>

**buckets (n.)**

**buffer overflow (BOF) (n.)**

**bug bounty (n.)**

**Bugcrowd**

Crowdsourced bug bounty security company

**built-in (adj.)**

**bulleted (adj.)**

**bullet point (n.)**

**bullet time (n.)**

**Burn All Gifs**

A project of the League for Programming Freedom

**Burp Suite, Burp Collaborator**

Web application proxy

**business impact analysis (BIA) (n.)**

**BuzzFeed**

**BYOD**

Bring your own device. Describes companies enabling employees to use their personal computers and phones for work. BYOD is pronounced as letters spoken.

**bypass (v. or n.)**

**byproduct (n.)**

**bytecode (n.)**

**bytes (n.)**

## C

### **cter or \r**

Invisible character that returns text to the beginning of the line. This is a skeuomorph referring to the way typewriters need to “return” a carriage to the original position.

### **Certificate or certification authority (CA)**

### **cache (n. or v.)**

### **cache busting (n.)**

### **case-by-case (adj.)**

### **cache poisoning (n.)**

### **CactusCon**

Annual security conference in Arizona.

### **callback (adj. or n.)**

As in “a crafted callback parameter.”

### **callback hell (n.)**

n Linux and Open Source by Eric S. Raymond (esr)  
[www.catb.org](http://www.catb.org)

### **canary account (n.)**

### **Canonical**

Ubuntu publisher

### **canonicalization (n.), canonicalize (v.)**

### **carriage return chara**

Programming mistake that ends in an infinite callback loop.

### **Cancel culture**

Mob mentality to vengevively silence and suppress activism

<http://techrights.org/2020/03/14/cancel-culture-and-freesw/>

### **case-sensitive (adj.), case sensitivity (n.)**

### **cash-out guide (n.)**

### **casper**

Run a "live" preinstalled system from read-only media

### **catch (v.)**

### **The Cathedral and the Bazaar (CatB)**

Musings o

### **CAPTCHA, CAPTCHAs**

The **Completely Automated Public Turing** test to try to differentiate between Computers and Humans

### **CCTV**

Closed circuit television  
Do not spell out

### **Capture the flag (CTF)**

**CBC**

Cipher block chaining  
Do not spell out

**CC, CC'd, CCing**

Carbon copy  
Do not spell out

**CCC or C3**

Chaos Communication Congress  
Annual security conference in Germany

**CD, CD-R, CD-ROM, CD-RW (n.)****CDMA**

Code division multiple access

**CDN**

Content delivery network

**CEH**

Certified Ethical Hacker

**cell phone (n.)****CentOS**

Red Hat GNU Linux distribution. Pronounced “sent-O-S” or “sent-oss.” Often referred to in speech as “cent”.

**CERT**

1. Computer Emergency Readiness Team
2. Cyber Emergency Response Team

**certificate or cert (n.)****CFAA**

The Computer Fraud and Abuse Act

**CFO**

Chief financial officer

**CGI**

1. Computer-generated images
2. Common Gateway Interface

**changelog (n.)**

Keep current with change management  
Standards exist depending on distro or distro base  
Can be converted easily to release notes

**chatroom (n.)****chattr**

Short for change attribute. Pronounced as “chatter”

**checkbox (n.)****checkmark (n.)****check out (v.), checkout (adj. or n.)****checksum, checksums (n.)****child abuse material (n.)****chmod**

Change mode  
Pronounced as “change mod”, “C-H-mod,” or “chuh-mod”

## **Chrome**

Google web browser.

## **Chromebook**

## **Chromecast (n. or v.)**

## **chroot**

Short for change root.

Unix operation simulating a directory in a filesystem as if this were the root of the filesystem

Pronounced as “C-H-root” or “chuh-root.”

## **chroot jail (n.)**

Isolation of processes from the system

False root

## **CIA**

1. Central Intelligence Agency
2. Triad of information security concerns:  
confidentiality, integrity, availability

## **CIO**

Chief information officer

## **cipher (n.)**

Do not use “cypher”

## **cipher suite (n.)**

## **ciphertext (n.)**

## **CIS 20**

Center for Internet Security has a list of 20 guidelines for securing organizations  
<https://www.cisecurity.org/controls/>

## **Cisco**

## **CIS CSC**

CIS Critical Security Controls

## **CISO**

Chief information security officer

Pronounced “seeso”

**Example:** The university CISO did not even know what SELinux was!

## **CISSP**

Certified Information Systems Security

Professional - Security certification

class, classes (n.)

## **Clean desk policy (CDP)**

## **cleartext vs. plaintext**

Use interchangeably

**Cleartext** is unencrypted content

**Plaintext** is a more technical term describing the input to a cryptographic system (which itself may already be encrypted or hashed)

## **clear web or Clear Web (n.)**

This is used in contrast to the “dark web” or “dark net” parts of the internet. It refers vaguely to publicly accessible sites that were indexed by search engines.



**clickbait (n.)**

**clickjacking (n.)**

In formal writing, refer to this as “user interface (UI) redress”

Also called “cross-frame scripting”

**click through (v.), clickthrough (adj. or n.)**

**client-side (adj.)**

**clip art (n.)**

**closed caption (n.), closed-caption (adj.)**

**cloud (n.)**

Corporate jargon; “the cloud” is just servers

**cloud computing (n.)**

**CloudFront**

AWS content delivery network (CDN)

**CloudTrail**

AWS logging and monitoring service

**cluster (n.)**

As in “provision a cluster on each account”

**cmake, CMake**

Cross platform build generator

**CMOS**

Complementary metal-oxide-semiconductor

**Example:** Use the CMOS battery to reset the BIOS

**co-author co-developer**

**co-creator (n.)**

**code (n. or v.)**

**codec**

Short for code/decode

**Code of CONduct (CoC)**

In general, additional guidelines or rules applied to projects and conferences. Seen as unnecessary in many cases. Options for friendly reminders available.

**Contributor Covenant, Censorship**

**Covenant:** Forged from the fires of a flame like war, the Contributor Covenant, a seemingly vindictive code of conduct was accepted by certain projects. Many projects reject this CoC for no code of conduct, a friendly contributor agreement, a citizen agreement or something like the FFmpeg code of conduct.

FFmpeg, a successful project for decades does not apply the Contributor or censorship covenant, but offers guidance in the FFmpeg code of conduct:

*Finally, keep in mind the immortal words of Bill and Ted, "Be excellent to each other."*

The author of the censorship (contributor) covenant edited and added a “malicious change”. This “was spotted by the

maintainers” of the Opal project. Opal rejected Ehmke’s code of conduct.  
<https://itsfoss.com/linux-code-of-conduct/>

In 2020, Ehmke, author of the Contributor Covenant ran for the OSI board and lost. The Censorship Covenant controversy continues to exist and is referred to as part of our Culture War.

**code path (n.)**

**code shrinking (n.)**

**coins vs. tokens**

**cold-call (v.), cold call (n.)**  
Social engineering strategy

**cold storage (n.)**

**cold wallet (n.)**  
Offline bitcoin storage

**Computer-aided manufacturing (CAM)**

**command and control (C2) machine (n.)**

**command line (n.), command-line (adj.)**

**command-line-interface (CLI)**  
CLI is an acronym for command-line interface or command language interpreter

**commercial-free (adj.)**

**commodity hardware (n.)**

Over-the-counter hacking tools that anyone can get and use

**Common Vulnerabilities and Exposures (CVE)**

Catalogs publicly known vulnerabilities and exposures

**Common Vulnerability Scoring System (CVSS)**

**Common Weakness Enumeration (CWE)**

**company-wide (adj.)**

**compensating controls (n.)**

**compile (v.)**

**compliance framework (n.)**

**computational linguistics (n.)**

**computer vision (n.)**

**config (n. or v.)**  
Short for a configuration or to configure

**configuration drift (n.)**

**connect-back shell (n.)**

**constants (n.)**  
Pre-defined, immutable variables referenced later in code

**containerization (n.)**

**Content Security Policy (CSP)**

**content injection (n.)**

**content spoofing (n.)**

**content type, Content-Type header (n.)**

**content management database (CMDB)**

**content management system (CMS)**

**-controlled (adj.)**

**cookie (n.)**

**cookie poisoning, cookie security (n.)**

**cooperate (v.)**

**coordinate (v.)**

**copycat (adj. or v.)**

**corporate espionage (n.)**

**corrupted (adj.)**

**Cortana**

Proprietary Microsoft AI

**countermeasure (n.)**

**counternotify**

shell script used to generate a DMCA counter-notification

**counter-notification**

Document to respond to a DMCA notification to restore content removed from a DMCA notification.

**coworking space (n.)**

**CPU**

Central processing unit  
Do not spell out

**crack (v.)**

**crawl (v.)**

**Creative Commons**

Licensing of free culture and sharable works. No longer considered “free” as open source proprietary influencers are within.

**credentials (n.)**

**credential reuse (n.)**

**critical (adj.)**

1. non-negotiable business function
2. easily exploitable vulnerability with catastrophic consequences

**criticality (n.)**

**CRM**

Customer relations management

**CRO**

Chief revenue officer

**cron**

Use cron to schedule jobs to run as specified in crontab

**cron job (n.)****crontab****Cross-origin resource sharing (CORS)****Cross-site request forgery (CSRF)**

Common vulnerability. Pronounced as letters or “C-surf”

**cross-platform (adj.)****cross-site scripting (XSS) (n.)**

Three types of XSS:  
reflected, stored, and DOM-based

**crowbar**

Password-cracking tool

**crowdfund (v.)****crowdsourcing (v.), crowdsourcing (n.)****CRUD**

Create, read, update, destroy

**cryptanalysis (n.), cryptanalytic (adj.)****crypto (n. or adj.)**

1. cryptography
  2. cryptocurrency
- Spell out first use to clarify

**cryptocurrency (n.)**

Virtual currency

**cryptographically (adv.)****crypto mining (n.)****CryptoParty**

Global series of events that educate communities about security and technology. <https://www.cryptoparty.in/>

**CSS**

HTML cascading style sheets  
Do not spell out

**CSV file, .csv file**

Comma-separated value(s)

**cutting edge (n.), cutting-edge (adj.)**

Related: bleeding edge

**CSWSH**

Cross-site WebSocket hijacking vulnerabilities

**CTO**

Chief technology officer

**CTR**

1. Short for clickthrough rate
  2. Counter Mode
- Spell out with first use

**Cupertino effect (n.)**

**CSPRNG**

Cryptographically Secure Pseudo-Random  
Number Generator  
Secure way of generating random numbers

**cURL**

Pronounced “curl”

**currency (n.)****C-suite (adj. or n.)**

Informal term for high-level executives  
CEO, CIO  
Also called “C-levels

**cursor (n.)****CW**

Content warning

**Cycript**

Reverse engineering tool for iOS devices

**Cydia**

App found on jailbroken iOS devices

**Cylons (n.)**

Fictional cyborgs in Battlestar Galactica

**CYA**

Cover your ass!

## D

### **daemon (n.)**

Background system process on a computer  
Pronounced as “demon” or “day-mun”

### **daisy chain (n.), daisy-chain (v.)**

Electrical engineering wiring scheme  
Informal

### **DAO**

1. Decentralized autonomous organization
  2. Data Access Object
- Spell out with first use

### **dark net or Dark Net (n.)**

This nebulous term, along with “dark web”

### **darknet**

Open Source Neural Network Framework in C and CUDA

### **Dark Reading**

Security industry publication

### **DARPA**

Defense Advanced Research Projects Agency

### **dba**

1. “doing business as”
  2. “database administrator”
- Spell out on first use in public-facing documents

### **data (n.)**

data is singular

### **Database (DB)**

spell out with first use unless DB is part of the term such as MongoDB or MariaDB

### **DDoS**

Distributed denial of service. Pronounced “D-doss” or as letters. Spell out with first use

### **database (n.)**

### **data center (n.)**

### **data files (n.)**

### **data handling (adj. and n.)**

### **data-only (adj.)**

### **data set (n.)**

### **data structures**

### **data type (n.)**

### **date (n.)**

command to display the date

### **dates (n.)**

Take global audiences into consideration when standardizing the date format for the project

### **datetime (n.)**

### **day-to-day (adj.)**

As in “day-to-day activities.”

**dead code (n.)**

**dead drops (n.)**

**Debian**

GNU Linux distribution

Base for many other respins

Pronounced “debb-ean”

Ian Murdock, founder of the Debian Project.

Controversial.

- Accusations of censoring and bribery
- Mollamby controversy.
- Non-uploading developer controversy.
- Community controversy – low to no representation by women and minorities

**debuggable (adj.)**

**decap (v.), decapped (adj.)**

**declare (v.)**

Tell a program the function exists before the function is defined

**decommmed (adj. or v.)**

Short for “decommissioned.” Informal.

**decompile (v.), decompilation (n.)**

**Deep Blue**

Famous IBM chess-playing AI

**deep dive (n.), deep-dive (v.)**

**deepfake, deepfakes (n. or adj.)**

AI-fabricated video, originally used in pornography

**deep learning (n.)**

**deface (v.)**

**DEF CON**

Annual security conference in Las Vegas

**Defective by Design**

Formerly the digital speech project, started at the Free Software Foundation. DRM free living guide. <http://digitalspeech.org> redirects to DbyD.

**DES**

Data Encryption Standard

Symmetric-key encryption cipher

DES is pronounced as letters or “dezz”

Do not spell out

**DEFCON system**

Military alert scale that is set at DEFCON 5 during peacetime and elevates to DEFCON 4 and above during threatening situations.

**defense in depth (n.),**

**defense-in-depth (adj.)**

**denial of service (n.),**

**denial-of-service (adj.) (DoS)**

**dependency hell (n.)**

When many dependencies are not met and more packages are needed for the unmet

dependencies and even more packages are needed for the packages of the unmet dependencies and so on and so forth, This, is dependency hell!

Unmet 1-5: 1, 2, 3, 4, 5

Needed packages for 1: a, b, c

Needed packages for 1a: this, that, other

Needed packages for 1a-other: some package replaced by something else – find and build me!

Needed packages for 2: a, b

Needed packages for 2a: too many too list!

...

**deprecate (v.), deprecated (adj.)**

Hardware or software considered retired, but left in for backwards compatibility

Included but unofficial and unsupported

**deserialization (n.)**

**deus ex machina**

Latin for “god from the machine.”

**DELETE request (n.)**

HTTP request

**dev (n. or adj.)**

1. Application or system in development, as opposed to a production (prod) system
2. Developer, informal

**developer experience**

How developers use your tools, utilities and applications offering insight through participant

testing to improve the human computer interaction in the future.

**DevOps**

Corporate jargon for development operations

**DevSecOps**

**DHS**

Department of Homeland Security

**DHTML**

Dynamic HTML

Do not spell out

**dialog box (n.)**

Use displays, never “appears”

**Example:** The properties dialog box displays.

**Diffie-Hellman (DH) key exchange (n.)**

Secure method for exchanging secret information

**dial up (v.), dial-up (n. or adj.)**

**dictionary-based attack (n.)**

Automated password-guessing attack  
Also called a “dictionary attack”

**diff (n. or v.)**

compare files line by line

**digital certificate (n.)**



**dingbat (n.)**

**directives (n.)**

**directory**

Use directory, never folder unless the project explicitly requires this

While Ubuntu uses folder in the system, maintain directory unless the project calls for “folder”

**Recommended:** “in a directory” “within a file”

**directories (n.)**

**directory traversal (n.)**

**Dirty COW**

Dirty copy-on-write; CVE-2016-5195

**disclosed, disclosure (n.)**

**discrepancy (n.)**

**disrupt (v.)**

**disseminate (v.)**

**Distinguished Name (DN)**

**Distinguished Name in the LDAP API**

**distro**

Short for distribution. Common usage. Can be used to replace distribution.

**DKIM**

DomainKeys Identified Mail allows messages that originate from a protected

domain to be cryptographically signed.  
Pronounced “D-Kim”

**DLL file, .dll file**

Dynamic-link library  
Windows “thing”

**DLP**

Data loss prevention

**DM (n. or v.)**

Direct message

**DMA**

Direct memory access  
Exploitable hardware feature

**DMARC**

Domain-based Message Authentication  
Pronounced “D-mark”

**DMZ**

Demilitarized zone  
Also known as perimeter network  
Refers to the less secure part of a network between the external firewalls and the WAN.

**DNS (n.)**

Domain name system  
Records stored in the DNS database include IP addresses, nameservers, SMTP mail exchangers, and Start of Authority (SOA)

**DOB**

Date of birth

## **DOCTYPE**

### **Docker**

A platform that makes and manages containers  
Document Foundation  
Manages and develops LibreOffice

### **Document type definition (DTD)**

### **DoD**

Department of Defense

### **DOE**

Department of Education

### **doge (n.)**

Shiba inu dog meme. Much pronunciation dispute. Wow.

### **DOJ**

Department of Justice

### **DOM**

Document Object Model  
Pronounced “dahm”

### **domain-joined (adj.)**

### **domain squatting (n.)**

### **DOM-based (adj.)**

### **dongle (n.)**

Object that interfaces with a port

### **Doomsday Clock (n.)**

## **DOS**

Disk Operating System

### **DoS**

Denial of service; a common vulnerability.  
Spell out with first use!

### **dot-com bubble (n.)**

### **dot-file (n.)**

### **double-click (v. or n.)**

### **downgrade attack (n.)**

POODLE attack is a downgrade attack

### **downtime (n.)**

### **downvote (v. or n.)**

### **dox, doxed (v.), doxing (v. or n.)**

Collection of PII to maliciously target an individual online and IRL

### **DPAPI**

Data protection API

### **dpi**

Dots per inch, as in “300 dpi”

### **DRAC**

### **drag-and-drop (adj.), drag and drop (v.)**

### **DREAD**

Damage, Reproducibility, Exploitability, Affected users and Discoverability

5 categories of security threats  
Risk assessment model

**drive, drives (n.)**

**-driven (adj.)**

**driver**  
module

**DRM**  
Digital rights management  
Spell out with first use

**DRM-Free**

**Dropbox**  
Third-party file-hosting service  
Use Nextcloud for end to end encrypted private cloud

**drop down (v.), drop-down (n. or adj.)**

**DROWN attack**  
Decrypting RSA with Obsolete and Weakened eNcryption attack. TLS bug

**Drupal**  
Popular Content Management System by Dries

**DuckDuckGo**  
Browser

**dump (v. or n.)**  
1. Output computer memory  
2. Drop

**dump files (n.)**

Files from memory dumps, core dumps, stack dumps, hex dumps, heap dumps, etc.

**dust management (n.)**

**DVD, DVR (n.)**

**Dvorak**  
An alternate keyboard setup that is efficient but uncommon. Pronounced “duh-vor-ack”

**Dynamic Data Exchange (DDE)**

## E

### E3

Electronic Entertainment Expo

**e-commerce (n.)**

**eavesdrop (v.)**

**eBay**

**Amazon Elastic Block Store**  
(EBS)

**echo request (n.)**

**edge**

Computing closer to the source

**edge case (n.)**

### EFF

Electronic Frontier Foundation. A nonprofit digital rights advocacy group. [eff.org](http://eff.org)  
Blue ribbon campaign for free speech.

**EICAR test file (n.)**

An antivirus test file that is intended to be found as a virus (though it's not actually malicious)  
Pronounced "eye-car"

### EIGRP

Enhanced Interior Gateway Routing Protocol

**Elasticsearch**

Open source search and analytics

electric, electrical (adj.)

**electronic (adj.), electronics (n.)**

**elements (n.)**

1. type of element – use default font
  2. named element – use code font
- Font use solely at the discretion of the project

**elevation of privileges (n.)**

A common strategy for attackers: start as a low-privilege user and moves up

**ELF, ELF's**

Executable and linkable format

**EMR**

**email (n.)**

**email addresses (n.)**

**email spoofing (n.)**

**embarrassingly parallel (adj.)**

Similar to "pleasingly parallel"

**embedded devices (n.)**

**emoji, emojis (n.)**

We prefer to pluralize as "emojis," but "emoji" can be the plural, too.

Related: Animoji, IM, tikzpeople, Unicode Consortium

Ex: ☐☐ 😊😊 🔥🔥

**emoticon, emoticons (n.)**

Typography-based pictographs - pre-dates emoji

Ex: :-) XD :/

**EMF**

Electromagnetic frequency

**-enabled (adj.)**

**-encoded (adj.)**

**-encrypted (adj.)**

**encrypter or encryptor (n.)**

**encryption (n.)**

**end-of-life (EOL) (adj.)**

Sunset

**endpoint (n.)**

**end-to-end secure boot chains (n.)**

**end user (n.), end-user (adj.)**

**End-user license agreement (EULA)**

Coercive agreement – not a contract

Pronounced “you-la”

**Engadget**

**enterprise security (ES)**

**entity encoding (n.)**

**enumerate (v.), enumeration (n.)**

**environment (n.)**

1. construct

2. scope of an engagement – more than a single application, site or network

**EOL**

End-of-life

Product lines are no longer

**ePHI**

Electronic personal health information

**ePub**

ebook format

**error messages (n.)**

**escape (v.)**

**ESP8266**

Low cost microchip with Wi-Fi

**ESR**

Eric S. Raymond. A well revered and respected leader and elder in the open source and hacking community, despite being banned by cancellation culture in the OSI, he co-founded. Wrote the jargon file.

**-established (adj.)**

**Ethernet (n. or adj.)**

The scope of an engagement that is more than a single application, site, or network  
Capitalized because Ethernet is a trademark

**evil twin attack (ETA)**

**evince**

GNOME document viewer

Reads postscript and PDF

**External penetration testing (EPT)**

**except, exception (n.)**

**excerpt (n.)**

Small portion of code or text

**executable (n. or adj.)**

**Example:** To make the script executable:

```
chmod a+x
```

**execute (v.)**

**exercise (v.)**

**exfiltrate, exfiltrated, exfiltrating (v.)**

**explicit (adj.)**

**exploit (v. or n.)**

**exploit chain (n.)**

**exploit video (n.)**

**exposed (adj.)**

**eye-tracking (adj.)**

**EyeWitness**

Tool used during security assessments

## **F**

**-facing (adj.)**

**facepalm (n. or v.)**

**failover (n.)**

**false flag (n.)**

**false positive (n. or adj.)**

### **FAQ**

Frequently asked questions

Pronounced as letters or “fack” or as letters  
“F.A.Q.”

**fat-finger (v.), fat-fingered (adj.)**

**Faux open**

**fauxpen source**

Segment of population new to “open source” or free software because being open source is in “fashion” or “trendy”. Can be individuals or a company.

Work towards a personal gain only, not serving the community in any positive way.  
Also known as simply “FAUX”.

### **FBI**

The Federal Bureau of Investigation

### **FCC**

Federal Communications Commission

### **FDA**

Federal Drug Administration

### **FERPA**

Family Educational Rights and Privacy Act of 1974 protects the privacy of student educational records and personally identifiable information

### **FFEIC**

### **FFmpeg, ffmpeg**

A complete, cross-platform solution to record, convert and stream audio and video

**fields (n.)**

If writing about a type of field, use the default font

**file extensions (n.)**

**filename (n.)**

No spaces

**Correct:** thisfile.md

**Incorrect:** this file.md

**file paths (n.)**

**file share (n.)**

p2p or other file share

**file size (n.)**

**filesystem (n.)**

**filesystem hierarchy**

<b>file stores (n.)</b>	<b>flame war (n.)</b>
<b>File Transfer Protocol (FTP)</b>	<b>flash memory (n.)</b>
<b>filesystem (n.)</b>	<b>flat files (n.)</b>
<b>file type (n.)</b>	<b>flatscreen (adj. or n.)</b>
<b>fetch (v.)</b>	<b>flow chart (n.)</b>
<b>filter (v. or n.)</b>	<b>flow logs, flow logging (n.)</b>
<b>fingerprint, fingerprinted (v.)</b>	<b>Flying Spaghetti Monster (FSM)</b>
<b>fingerprints (n.)</b> Unique public key identifiers	The supreme deity in the facetious religion of Pastafarianism, which was founded
<b>FIPS tests</b> Federal Information Processing Standard	<b>FOIA</b> Freedom of Information Act
<b>Fire TV</b> Amazon media player	<b>forge, forging (v.)</b>
<b>firewall (n.)</b>	<b>follow up (v.), follow-up (n. or adj.)</b>
<b>FireWire</b>	<b>footprinting (n.)</b>
<b>fixed-width (adj.)</b>	<b>force-browse (v.)</b>
<b>flags (n.)</b> Also known as parameters in some cases. Place caution when adding the dash to the flag in a copy code snippets. Errors by Windows users and with some default settings in LibreOffice convert dashes to non POSIX or non funtional. Make flags clear and functional in content.	<b>forceful browsing (n.)</b>
	<b>forensic watermark (n.)</b>
	<b>fork (v. or n.)</b>
	<b>formula, formulas (n.)</b>
	<b>FOSS</b> Free and Open Source Software



**four-way handshake (n.)**

A network authentication protocol

**FPS, fps**

1. First-person shooter video game

2. Frames per second

Space between the number and the unit, as in “28 fps.”

**frag****frame rate (n.)****framework (n.)****free-form (adj.)****freenode**

IRC GNU Linux support channel. Originally, linpeople on EFNet in 1995, moving to other networks until ultimately on its own network as irc.linpeople.org

In 2002, changed the name to freenode from Open Project Network. Prior to the passing of lilo (Rob Levin), the community gathered here in IRC with channels to support community matters. After lilo passed in 2006, the atmosphere and “rules” of the irc changed, with many freenode supporters leaving the platform.

**Free Software Foundation (FSF)**

A nonprofit organization once revered in the community prior to the cancellation of Richard Stallman

**Free Software Foundation Europe (FSFE)**

This nonprofit seems to be affiliated with the Free Software Foundation but there is no evidence of such from the FSF that can be found as of this publication.

FSFE does receive support from Google according to various sources. Controversy in 2019, allegations of misappropriations of a six figure donation were met with some censorship, according to a source close to the organization.

**FreshMeat**

Once a source for new programs, this became obsolete to most in the Free and Open Source community around 2005

**front door (n. or adj.)****front end (n.), front-end (adj.)****FTC**

The Federal Trade Commission

**FTL**

“Faster than light” warp drives in the TV

**Fully qualified domain name (FQDN)****FUD****Full disk encryption (FDE)**

Whole disk encryption

**fullz (n.)**

A package of PII purchased online

**functionality (n.)**

**function keys (n.)**

Use the default font, as in F1 and F8.

**future-proof (v. or adj.)**

**function (n.)**

**fuzz (n. or v), fuzzer (n.), fuzzing (n. or v.)**

A fuzzer generates or mutates input for consumption

**fuzz testing harness (n.)**

A framework that handles the crashes that result from a fuzzer

**fuzzy logic (n.)**

**FXL**

Feature extraction language

## G

**Game Boy**

**GameCube**

**game jam (n.)**

Video game hackathon

**Game of Life**

Programmable simulation

**-gapped (adj.)**

**Garbage collection (GC)**

**gateway (n.)**

**gems (n.)**

Ruby related

**General Data Protection Regulation,**

**GDPR**

<https://gdpr-info.eu/>

**geocache, geocaching (n. or v.)**

**geolocation (n.)**

**getID3()**

PHP media file parser

ID3 tags refer to media metadata

**GET request (n.), GETBULK request (n.)**

**GIF file, .gif file**

Pronounced “giff” or “jiff.” ㄟ\_(\_ツ)\_/

**GIGO**

Garbage in, garbage out

**git**

Free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

Developed by Linus Torvalds

**GitHub**

Code repositories. Very popular prior to purchase by Microsoft. Developers moved to alternate 3<sup>rd</sup> party repo services like GitLab after the MS acquisition.

**GitLab**

Code repositories

**Glade**

User Interface designer

**GLBA compliance**

Gramm-Leach-Bliley Act of 1999 is a standard of security for financial institutions. Do not spell out

**glob, globbing (n. or v.)**

**Globally unique identifier (GUID)**

Pronounced “goo-widd”

guid generator for GNU Linux is uuidgen

## **GNOME Desktop Environment**

**gnome-session**

## **GNU**

Short for “GNU’s Not Unix!” operating system  
Pronounced “guh-noo”

## **GNU Project**

The GNU project is a mass collaborative initiative for the development of free software. Richard’s house.

## **Gnu Privacy Guard (GPG)**

Also written as GnuPG

## **Go**

Programming language

## **Golang**

**golden master (n.)**

**gold image (n.)**

**goodput (n.)**

## **Google**

Search engine

**google (v.)**

**Google Assistant**

**Google Drive**

**Google Home AI.**

## **Google Search**

**Google Web Toolkit (GWT)**

## **GoPro**

## **GPS**

Global positioning system

## **GPU**

Graphics processing unit

## **Gradle**

Open source build tool

**grandfather clause (n.)**

**gray-box testing (n. or v.)**

Another term for base image or configuration baseline.

**gray hat (n. or adj.)**

**grayed out (adj.)**

**grep (n. or v.)**

GNU tool of the same name or to mean “search”

**greylisting (n.)**

**grok (v.)**

To fully understand, to get

**Group Policy Object (GPO)**

**groupthink (n.)**

## **Grumpy Cat**

### **GUI**

Graphical user interface

GUI is pronounced “gooey” or as letters

# H

**hack (n. or v.)**

**hackathon (n.)**

**hacker (n.)**

**Hacker Dojo**

Bay Area tech community hackerspace

**HackerOne**

Vulnerability coordination and bug bounty platform.

**Hackers**

1995 movie about hacking the Gibson and the planet

**hacktivist (n.)**

Mainstream usage for activist in the hacker community

**Hadoop**

Apache framework

**HAL 9000**

Fictional AI from 2001: A Space Odyssey

**H-1B visa (n.)**

U.S. work visa for specialty occupations.

**Halt and Catch Fire**

AMC TV show about hacking, set in the 1980s

**H.264 (n.), H.264-encoded (adj.)**

**ham radio (n.)**

**hamburger button (n.)**

Icon with three horizontal lines to show hidden menu options when clicked

**handheld (adj.)**

**handle (n.)**

**hashed (adj.)**

**hash functions (n.)**

**hashtag or #**

**hang (v.)**

non-responsive

**HAZOP**

A hazard and operability study.

**H-Browser**

A web browser.

**haptic feedback (n.)**

**hardcode (v.), hard-coded (adj.)**

**hard copy (n.), hard-copy (adj.)**

**hard drive (n.)**

**harden (v.)**

To configure applications, systems, or services in a more secure manner

**-hardening (n. or adj.)****hardware (n.)****hashcat****hash collision attack (n.)****HCL**

Hardware compability list. In the early days, GNU Linux was not supported by hardware companies. We shared experiences in IRC about hardware working with our systems. With the HCL, purchasing hardware to work with GNU Linux was much easier.

**HDMI****HDTV**

High-definition television. Do not spell out.

**headers (n.)****headless browser (n.)****HEAD request (n.)**

A tool used during security assessments.

**healthcare (n.)****heap-based buffer overflow (n.)****Heartbleed****OpenSSL bug****hex (n.), hex-encoded (adj.)****HID**

Human interface device

USB Rubber Ducky is a keyboard HID

**high-impact (adj.)****high-performance (adj.)****highest-severity (adj.)****high-speed (adj.)****high-value (adj.)****hijack, hijacking (n. or v.)**

An umbrella term for attacks to take over controls or assume the role of a user to compromise a system.

**HIPAA**

The Health Insurance Portability and Accountability Act  
Pronounced “hippa”

**HMAC**

Hash-based message authentication code  
Pronounced “H-mack”  
Do not spell out

**homepage (n.)****HomePod**

Apple smart speaker

**homescreen (n.)**

**honey accounts (n.)**

**honeybot (n.)**

Twitterbot troll

**honeypot (n.)**

**honeytokens (n.)**

**hook (v.), hooked (adj.), hooking (n.)**

**Hopper**

Reverse engineering tool

**-hosted (adj.)**

**host-hardening (adj.)**

**hostname (n.)**

**hosts (n.)**

Use the tech or code font for the numbers for host addresses

**hotfix, hotfixes (n.)**

**hotspot (n.)**

**hot-swap (v.)**

**hot wallet (n.)**

Online bitcoin storage.

**http://, https://**

**hotlink, hotlinking (n.)**

**hotwire (v.)**

**hover (v.)**

**how-to (n. or adj.), how to (v.)**

Related: mini how-to

**Hping**

**h/t or H/T**

**HTML, HTML5**

Hypertext Markup Language

Do not spell out

**HTTP/2**

**HTTP Live Streaming (HLS)**

**HTTP Parameter Pollution (HPP)**

**HTTP methods or HTTP verbs**

**HttpOnly integrate**

**HTTPOxy**

**HTTP response splitting (n.)**

**HTTP statuses (n.)**

**HTTP Strict Transport Security (HSTS)**

**HTTP.sys**

**Human-computer interaction (HCI)**



In 2010, the HCI lab at UC Berkeley conducted a test to compare nonproprietary GIMP with proprietary Photoshop.

**humblebrag (n. or v.)**

Disingenuous public complaint that slyly boasts about an enviable life

**hyperspace (n.)**

**hypertext (n.)**

The “HT” in HTML and HTTP.

**hyperthreading (HT)**

# I

## **I2P**

Invisible Internet Project  
Anonymous communication network  
Do not spell out

## **i18n**

Internationalization  
18 represents the 18 letters removed from the middle of the word “internationalization”

## **IANAL**

“I am not a lawyer”  
Informal

## **ICE**

1. Intrusion Countermeasures Electronics  
2. Immigration and Customs Enforcement

## **ICO**

Initial coin offering

## **ID, IDs**

Identification

## **idempotence (n.), idempotent (adj.)**

Idempotent operation produces a result that is not affected by repetition.

## **Identity and Access Management (IAM)**

## **AWS**

i.e.

“that is to say” in Latin. Always followed by a comma. e.g. means “for example.”  
Choose wisely

## **iframe or iframe tag (n.)**

Inline frame

## **IFTTT**

If This Then That  
Pronounced as “ift”

## **IIoT**

Industrial Internet of Things.

## **IIRC**

If I recall correctly

## **iLO**

HP Integrated Lights Out.

## **Imgur**

A photo-hosting website

## **implementable (adj.)**

## **implicit (adj.)**

## **improper MIME type (n.)**

## **improperly scoped cookies (n.)**

## **in-band (adj.)**

## **inbound (adj.)**

## **inbox (n.)**

**incident response (IR) plan (n.)**

**index, indexes (n.)**

**infiltrate (v.)**

**information security (n.)**

**Infosec**

**informed consent**

Collecting data with the consent of the user or party

In 2020, Google was sued by Australia Competition and Consumer Commission for collecting data without informed consent.

**information superhighway (n.)**

Avoid using this to describe the internet

**Infrastructure as a Service (IaaS)**

If spoken, say the whole phrase, not the acronym

**in-game (adj.)**

**in-house (adj.)**

**init script**

Boot script

**injection (n.)**

**inline (adj.)**

Code that is in line with other code

**input (v. or n.)**

**in-scope (adj.)**

**insourcing (n.)**

**instance count (n.)**

**Instant message (IM)**

**Integrated development environment (IDE)**

**Intelligent platform management interfaces (IPMI)**

**interface (n. or v.)**

**Internal penetration testing (IPT)**

**internet (n.)**

**The Internet Archive**

Nonprofit library and archive of historical web pages <https://archive.org/>

**Internet Control Message Protocol (ICMP)**

**Internet of Things (IoT)**

Pronounced as letters or as the entire phrase  
Consumer-grade embedded devices

**Internet Protocol Security (IPsec)**

**Internet service provider (ISP)**

**Interpol**

The international police organization

**Intrusion detection system (IDS)**

**Intrusion prevention system (IPS)**

**IP**

1. Internet Protocol
2. Intellectual Property - Outside of the free software community, people use IP for intellectual property to indicate the three separate items: Copyright, Trademark, Patents.  
Avoid using “IP” and “intellectual property”.

**iPad, iPod**

**IP addresses (n.)**

Use the tech font, for IP addresses

**IPO**

Initial Public Offering

**IPP**

Internet Printing Protocol

**iptables**

**ISAC**

Information Sharing and Analysis Center.  
Pronounced “eye-sack.” Spell out on first

**ISO/IEC 27001**

A common information security framework that determines international standards for many types of technology and equipment.  
ISO is pronounced “eye-so”

**IRC**

Internet Relay Chat  
Messaging system

**IRL**

In real life

**IT**

Information technology

## J

### **jack (n.)**

As in “Ethernet jack.” Better to use “port” informal writing.

### **jailbreak (v.)**

To modify a mobile device (e.g., a smartphone) past limits set by the manufacturer, to gain privileged access

### **jailbroken (adj.)**

User-modified mobile device.

### **Java EE**

Java Enterprise Edition  
Do not abbreviate

### **JavaScript (JS)**

### **Java virtual machine (JVM)**

### **JBoss**

Java application server

### **JCE**

Java Cryptography Extension

### **Jenkins**

### **Jira**

Workflow and issue tracking product.  
Atlassian product, Not an acronym  
Pronounced “jeera”

### **Java Management Extensions (JMX)**

### **JPEG file, .jpeg file, JPG file, .jpg file**

Pronounced “jay-peg”

### **jQuery**

### **JSON, JSONP**

Pronounced as J-sahn or Jason  
JavaScript Object Notation.  
JSONP is short for “JSON with padding”

### **juice jacking (n.)**

Attack in which a power cord steals data

### **Julia**

Programming language.

### **jumpbox (n.)**

Synonyms “proxy” or “attacker’s server”  
Also called jump host or jump server

### **jump drive (n.)**

Informal. Use USB drive, flash drive, or thumb drive instead, depending on the context.  
Related: USB drive

### **junkie**

Addict  
Command-line junkie

### **junk mail (n.)**

### **JWT**

JSON Web Tokens. Pronounced “jot”  
Do not spell out

# K

## **k8s**

Kubernetes. 8 represents the eight letters removed from the middle of the word “Kubernetes”

Write this term out in formal content  
Pronounced “coober-nettees”

## **Kali Linux**

## **Karen**

privileged woman

## **Kaspersky Labs**

International security firm headquartered in Russia.

## **KDE**

Desktop Environment  
kdestart

## **keepalive, keepalives (KA) (n.)**

Keepalive packets.

## **KeePass**

Password management software.

## **kernel**

## **kernel panic (n.)**

## **keyboard keys (n.)**

## **keychain (n.)**

## **keygen, keygens (n.)**

Key generators

## **keylogger, keylogging (n.)**

## **Key management as a service (KMaaS)**

## **Key management service (KMS)**

## **key pair (n.)**

## **keysigning party or key signing party (n.)**

Event to share public keys (.pub)

## **keyword (n.)**

## **keyspace (n.)**

## **keystore (n.)**

## **keystroke (n.)**

## **Keywhiz**

Secret management software

## **kill chain (KC) (n.)**

## **kill switch (n.)**

## **kluge or kludge (n.)**

Bad code

## **knowledge**

Third in Stages of Progression

- data
- information
- knowledge
- wisdom

**knowledge base (n.)**

**Knowledge and Development (KR)**

**knowledge worker**

**KRACK**

Wi-Fi-based vulnerability

**kraken**

IRC slashdot user in freenode who designed the “free sklyarov” banner used universally for the campaign

**Kubernetes or k8s**

Pronounced “coober-nettees”

## **L**

### **L10n (n.)**

Localization. 10 represents the 10 letters removed from the middle of the word “localization”

### **LAMP**

Linux, Apache, MySQL, and PHP

Related: MEAN

MongoDB, ExpressJS, Angular, Node

### **LAN**

Local area network

### **LanMan hash**

Short for LAN Manager hash. LM hash is also acceptable.

### **LARP, larping (n. or v.)**

Live Action role playing

### **LastPass**

Password management software.

### **LaTeX**

Document preparation system  
Pronounced “lay teck”

### **Layer 3 firewall rules (n.)**

### **LCD, LCDs**

Liquid crystal display monitors  
Do not spell out

### **LDAP**

Lightweight Directory Access Protocol  
Pronounced “ell-dap”

### **LDAP Admin**

A tool used during security assessments.

### **LED**

Light-emitting diode

### **Leet, 1337, Leetspeak, l33tsp34k**

A coded form of online writing featuring codified typos and a combination of numbers and punctuation

**Examples:** H4X0R, CH1x0R, n00b, pr0n

### **Let’s Encrypt**

Security certificate service

Public benefit organization – Internet Security Research Group – Josh Aas, Director

### **-level**

### **leverage (v.), leveraged (adj.)**

### **LGBTQIA**

Lesbian, gay, bisexual, transgender, queer, intersex, asexual. For more guidance about inclusive language, please consult <http://consciousstyleguide.com/>.

### **lifecycle management (n.)**

### **life hack (n.)**

### **Lightning cables (n.)**



**“like” (v.)**

A verb of approval on social media sites like Facebook and Twitter

**Like button (n.)**

Social media feature popularized on Facebook, as in “this post has 10 Likes.”

**likelihood (n.)****Learning Management System (LMS)**

Moodle, Totara

**limit (v.)**

To control the scope, impact, or types of attacks

Also use filter, narrow, or omit

**linefeed characters (n.)****line numbers (n.)****LinkedIn****Linux**

A kernel created and maintained by open source developers.

GNU Linux for the OS.

**Listicle**

Do not use

**listserv (n.)**

The company is called LISTSERV

The generic term is “listserv” or “email list”

**little-endian (adj.)****livestream (v.), livestreaming (n.)****live-tweet (v.)****load-balance (v.), load balancing (n.)****localhost****localStorage****Local Security Authority Subsystem Service (LSASS)**

Pronounced “ell-sass”

**lockout policy (n.)****lock picking (n.)**

The skill of opening locked items with lock picks or paper clips or hairpins... or other extraordinary means

**lock screen (n.)****log files (n.)**

/var usually

Very important to gain insight on errors or what occurred

**logged-in (adj.)**

As in “logged-in user”

**login screen (n.)**

**Example:** xdm, mdm

**log in (v.), login (n.)**

**log out (v.), logout (n.)**

**LOIC**

Low Orbit Ion Cannon

Old-school way to crowdsource a DoS attack

Pronounced “low-ick”

**lolcat**

I can has internet language?

**Long Term Support (LTS)**

**lossy compression (n.)**

**lossless**

**lowercase (adj.)**

**lookahead parameter (n.)**

**LTE**

Long Term Evolution

High-speed wireless communication standard

Do not spell out

**Lucky Thirteen attack (n.)**

## M

### **MAC address**

Media access control address.

### **MacBook**

### **machine learning (ML) (n.)**

### **macOS (n.), macOS-based (adj.)**

### **macro (n.)**

### **Man-in-the-Browser attack (MitB)**

### **mailbomb (n. or v.)**

**Related:** dox, phish, spam

### **Man in the Middle (n.),**

### **Man-in-the-Middle (adj.) (MitM)**

### **MailChimp**

### **mainframe (n.)**

### **Maker Faire**

A global series of DIY community events

### **Malbolge**

Esoteric programming language

### **malformed (adj.)**

Syntactically improper bit of data or code

### **malicious actor (n.)**

This represents a wide range of potential

### **malicious code (n.)**

### **malware (n.)**

Malicious software

### **mapping (n.)**

### **MariaDB**

Community developed and supported fork of MySQL from the original developer.

### **Markdown (n.)**

### **marketplace (n.)**

### **markup language (n.)**

### **mass assignment (n.)**

### **master/slave**

Legacy terminology

Use inclusive language such as primary/secondary

### **Master service agreement (MSA)**

### **matrix, matrices (n.)**

### **MB**

Megabyte. No space between the number and unit, as in “75MB.” Do not pluralize MB.

### **MD5**

Message Digest 5 used for verification, not security  
Efficient but highly insecure hashing algorithm

**meatspace (n.)**

1. Tool used during security assessments
2. Real life

**mechanism (n.)**

Write the name in the tech font, as in

**Meltdown**

A flaw that affects Intel, AMD, and ARM chipsets  
Publicly disclosed in January 2018

**Memcache**

**meme (n.)**

Pronounced “meem”

**Message Authentication Code (MAC)**

**message board (n.)**

**metacharacters (n.)**

Character with a special meaning in a programming language

**metadata (n.)**

Information relevant to the content such as image, video, or audio

**Metasploit**

Tool used during security assessments

**Meterpreter**

**MHz**

Megahertz, as in “100 MHz”

**MiB**

In Base 2, 1 mebibyte (MiB) is 1,024

**MIDI**

Musical instrument digital interface

Do not spell out

Pronounced “midd-ee”

**milkshake duck (n.)**

Hypothetical wholesome new public figure who is quickly revealed to be vile

**MitM**

1. Man-in-the-Middle
2. Meet in the Middle

**military-grade encryption (n.)**

**MIME**

Multipurpose internet mail extensions

Do not spell out

Pronounced “mime”

**Mimikatz**

Tool used during security assessments

**microblogging (n.)**

**MINIX**

Mini-Unix

**microblog**

**microservice (n.)**

**mirroring (n.)**

**Microsoft**

- Proprietary company
- Previously stated GNU Linux was against the American Way.

‘Microsoft describes the GNU General Public License (GNU GPL) as an “open source” license, and says it is against the American Way’ – RMS

**mirror site (n.)**

**mission-critical (adj.)**

**mitigate (v.)**

**mitigation (n.)**

**millennial (n. or adj.)**

People born between 1980 and 2010

**mobile devices (n.)**

Smartphones and tablets

**mod (v. or n.)**

1. To modify. Informal.
2. model numbers (n.)

**Moore’s Law**

About every 18 months since 1965, the

number of transistors per square inch on integrated circuits has doubled by Intel co-founder Gordon Moore

**MOTD**

Message of the day

**motherboard jumpers (n.)**

**motion-activated (adj.)**

**motion capture, mo-cap (n. or adj.)**

**mouseover (adj. or n.), mouse over (v.)**

**mousepad (n.)**

**Mozilla Firefox**

**MP3, .mp3 file, MP4, .mp4 file**

mp4 is a container

**Mr. Robot**

TV show about a paranoid hacker. Claims accuracy but completely inaccurate with regard to the Postmates hack. AMA.

**ms**

Milliseconds

**MS, M\$**

Microsoft

**multi-factor authentication (MFA) (n.)**

**Muskovite**

Musk dark meme enthusiast/follower

**Mustache**

**MySQL**

Database

Pronounced “my sequel”

## **N**

### **\n**

Newline

### **NAC**

Network access control

Pronounced “nack”

### **nameserver (n.)**

An internet server that resolves domain name queries

### **NAND gate (n.)**

Short for negative-AND gate

### **nanotechnology (n.)**

### **Nasdaq or NASDAQ**

### **nation state (n.)**

### **need to know (v.), need-to-know (adj.)**

The user does not need to know this. Intel is given on a need-to-know basis

### **nepotism**

When an unqualified relative gets a position because another relative works at the company or university. A crime in many states. Non relative but hiring an unqualified friend is cronyism.

### **netblock (n.)**

Range of IP addresses

### **Netcat or nc**

Utility that reads from and writes to network connections with TCP or UDP

### **Netflix**

### **net neutrality (n.)**

### **net risk (n.)**

Overall risk

### **network security (n.)**

Alternate term for information security.

### **network segmentation (n.)**

### **NFS**

Network File System

### **ngrep**

Network grep

Pronounced “N-grep”

### **NfSpy**

### **Nginx**

Web server software. Pronounced “engine X”. Controversy over how this source code was opened.

### **Nintendo Switch, SwitchLite**

### **NIST**

National Institute of Standards Technology  
Pronounced “nist”

**NIST CSF controls (n.)**

**NLA**

Network Level Authentication

**NLP**

Natural language processing

**Nmap, Nmap scan**

Short for Network Mapper. Pen testing tool used to scan ports and map networks.

**NOC**

Network operations center  
Pronounced “nock”

**node (n.)**

**Node.js**

Open source JavaScript runtime

**nonce, nonces (n. or adj.)**

**Non-disclosure agreement (NDA)**

**nonprofit (n. or adj.)**

**nosniff**

**NotPetya**

**NSA**

U.S. National Security Agency

**NSFL**

Not safe for life/lunch

**NSFW**

Not safe for work

**NULL**

**Nothing, empty, NIL, no result**

**null byte character (n.)**

**null byte injection (n.)**

**NULL session (n.)**

**NVD**

National Vulnerability Database



## O

### **OAuth**

Authentication protocol

Pronounced “oh-auth”

### **OData**

RESTful means of exposing access to a data store.

### **obfuscation (n.)**

### **Objective-C**

### **Object-oriented programming (OOP)**

open access (n. or adj.)

### **oclHashcat**

GPGPU based multi-hash cracker tool used during security assessments

### **offboarding (n.)**

Outplacement management, exit process

### **off-by-one error (OBOE) (n.)**

### **off-chain (adj.)**

Off-the-block cryptocurrency transactions

### **offline (adj.)**

### **offscreen (adj.)**

### **off-site (adj.)**

As in “off-site redirect”

## **Off the Hook (OTH)**

### **OGNL**

Object-graph navigation language

Open source language

Vulnerable to injection

### **OK**

1. button

2. state abbreviation

3. okay

### **on-air (adj.)**

### **onboarding (n.)**

Orientation and inplacement management, entry process

### **on-demand (adj.), on demand**

On-demand services. Services on demand.

### **one-liner (n.)**

Command on one line

### **one-time (adj.)**

### **ongoing (adj.)**

### **The Onion**

Satirical news site

### **online (adj. or n.), on line**

### **onscreen (adj.)**

**on-site (n. or adj.), on site**

Physical location

**Example:** As a consultant, I tend to work on-site during kickoff!

**OpenID**

Authentication protocol

**open source**

Software with source code available encouraging collaboration and modification. Free software focuses on user freedom. The four freedoms are to run, to study and change, to redistribute exact copies, to distribute modified versions. Open source people may find proprietary software “no problem” or use proprietary software. By 2020, the leadership in Open Source left or were banned, leaving this movement without leadership or direction.

**Related:** The Cathedral and the Bazaar

**OpenVPN**

Open source VPN software

**operating system (OS) (n.)**

Never OSes

**OpManager Decrypter**

Tool used during security assessments

**OPSEC**

Operations security

**opt**

1. directory for third party installations

2. option

3. optimization abbreviation

**Optical character recognition (OCR)****opt in (v.), opt-in (adj.)**

Selection to “opt in” or be included

**opt out (v.), opt-out (adj.)**

Selection to “opt in” or be excluded or not included

**\*.orig**

File extension for the original backup of a config file

**Original equipment manufacturer (OEM)****OS (n.)**

Operating system

To pluralize, spell out operating systems

Never OSes

**OSCP**

Offensive Security Certified Professional

**OSGi**

Open Services Gateway Initiative

**OSI**

Once a revered organization founded by Bruce Perens and ESR, recently considered obsolete due to the cancellation/banning of ESR and the exit of Perens. The main purpose of the OSI was to maintain the open source definition. After his departure, Perens stated:

“OSI has approved a lot of licenses they should not have, and continues to do so. So not sure their approval is very relevant. I will create the ecosystem, but I did not create the goals when starting OSI, Richard Stallman did long before. I just marketed them better.” According to Perens and the community, OSI is no longer relevant.

In 2021, the voting was stopped due to vulnerability in the process, after a winner self announced.

Several members of OSI started a cyberbully campaign on github as a letter to FSF to remove RMS after he was restored. This backfired as police reports re cyberbullying were encouraged by Debian.community. After a few days, the pull requests on github were stopped and emails only were encouraged. After another week, issues were removed, contributors edited and reports of Terms of Service violations made to Github. Allegations by those who started a support RMS letter included messages by opposition to “reconsider” their signatures or face the possibility of how employers may react to their transphobia.

## **OSINT**

Open Source Intelligence  
Pronounced “O-S-int” or “oh-sint”

## **OT**

Operational technology

## **OTP**

1. One-time password
  2. One true pairing
- Spell out for first use

## **OTW**

Off the wall

## **outbound (adj.)**

## **outbox (n.)**

## **outbrief (n.)**

## **outdated (adj.)**

## **outgoing (adj.)**

## **out-of-band (OOB) (adj.)**

## **out-of-date (adj.)**

## **out-of-scope (adj.), out of scope**

## **outsource, outsourcing (n. or v.)**

## **Over-the-air (OTA) programming**

## **OWASP**

Every few years, the Open Web Application Security Project curates a list of the top 10 threats in information security  
Pronounced “oh-wasp”

## **OWASP Zed Attack Proxy**

Web vulnerability proxy and scanner

## **own**

Avoid as a personal possessive!

This is redundant

**Incorrect:** My own, their own.

## **-owned (adj.)**

## **P**

### **PaaS**

Platform as a service. If spoken, say the whole phrase or “pass.” Spell out on first

### **pages (n.)**

For a specifically titled web page, capitalize as in “the About Us page”

### **page-hijacking (n.)**

### **page view (n.)**

### **pain points (n.)**

Corporate jargon  
Use sparingly

### **PAN**

1. Short for primary account number or
2. personal area network  
IEEE standard – was previously body area network

### **PAN truncation (n.)**

### **parameterized queries (n.)**

Also known as “prepared statements”

### **parameters (n.)**

### **parse (v.), parser (n.)**

### **Pastebin**

Text storage site

### **pastebin (n. or v.)**

1. text storage site
2. publishing something anonymously online

### **patch (n. or v.)**

Update to existing software that adds or enhances features, fixes bugs, or both

### **patch cycle (n.)**

### **PATCH request (n.)**

### **path traversal (n.)**

Also known as directory traversal

### **passphrase (n.)**

### **pass-the-hash attack (n.)**

### **password-protected (adj.)**

### **passwords (n.)**

### **PASTA**

Process for Attack Simulation and Threat Analysis. Risk-based threat methodology

### **PAX**

### **payload (n.)**

### **PayPal**

Mobile payment service

### **paywall (n. or v.)**

“blocked by paywall”

**PBKDF2**

Password-based key derivation function

**PCI**

1. Payment Card Industry
2. Peripheral Component Interconnect. Briefly

**PCI compliance (n.)****PCIe**

Peripheral Component Interconnect Express  
Serial expansion bus standard

**PCI DSS**

Payment Card Industry Data Security  
Standard(s)

**PCRE**

Perl-compatible regular expressions

**PDF, .pdf file****PEBKAC**

Problem exists between keyboard and chair  
Pronounced “peb-cack”

**peer-to-peer (adj.)****penetration testing, pen testing (n.)**

real-world attacks to identify ways to circumvent  
the security features

**percussive maintenance (n.)**

Fixing things by hitting

**peripherals (n.)**

Auxiliary devices, equipment

**Perl**

Practical Extraction and Report Language  
Programming language

**permissions (n.)****PERSEC**

Personal security

**persistence (n.), persistent (adj.)**

Persistent access means an attacker  
continues to access a system or application over  
a long period of time

**Petya**

Ransomware attack that hit in June 2017

**pfSense**

Open source firewall

**PGP**

Pretty Good Privacy  
Encryption program

**phase, Phase 1****PHI**

Protected health information  
Pronounced as letters

**phishing (n.)**

email phishing

**PHP**

Short for PHP: Hypertext Preprocessor  
Programming language  
Do not spell out

**PHR**

Personal health record

**phreaking (n.)**

Phone hacker

**pickle**

Python object serialization protocol

**pickled (adj.), pickling (n.)**

Python object hierarchy converted into a byte stream (and therefore serialized)

**Pidgin**

Chat program allowing simultaneous login across multiple chat networks.  
Was GAIM.

In the early 2000s, Mark Spenser (kram) entered IRC in the freenode slashdot channel when AOL sent a trademark cease and desist. As freenode had previously been a forum for community (not currently), this discussion in freenode led to the call out to community and response to the AOL C&D.

Silently serving the community – legal minds from Harvard’s Berkman center, and Stanford Law worked with a skilled wordsmith to coordinate, edit, and send this response.

**PII**

Personally identifiable information

**PIN**

Personal identification number.

**ping (v., n., or adj.)**

1. To initiate contact and wait for a response.
2. ping utility

**pirate (n. or v.), pirated (adj.)****The Pirate Bay (TPB)****pivot point (n.)**

Foothold that an attacker can use to gain

**pixel (px) (n.)****playlist (n.)****PlayStation****PLD (n.)****PL/SQL**

Programming language used by Oracle.

**plug in (v.)****plugins (n.)****Piwik**

Open source analytics program

**plaintext or plain text**

1. unencrypted text (like cleartext)

- 2. the input to a cryptographic system
- 3. simple, unformatted text (not rich text)

**p.m.**

**PO (n.)**

Purchase order

**PoC (n.)**

- 1. proof of concept
  - 2. point of contact
- Pronounced as letters or “pock”

**podcasts (n.)**

**PoE**

Power over Ethernet

**POODLE attack (n.)**

Padding Oracle on Downgraded Legacy

**POP**

- 1. Procedure-oriented programming
  - 2. point of presence
  - 3. Post Office Protocol
- Spell out with first use

**pop up (v.), pop-up (adj. or n.)**

**portal (n.)**

entranceway

**Example:** employee login page

**port numbers (n.)**

**ports (n.)**

As in “USB port”

**port scan (n.)**

**POSIX**

Portable Operating Sstem Interface standard by IEEECS

**post (v. or n.)**

**POST request (n.)**

**post-apocalyptic (adj.)**

**post-exploitation (adj. or n.)**

**Postgres or PostgreSQL**  
database

**PowerBook**

**power cycle (v.)**

**power user (n.)**

**preflight (n.)**

**preimage (n.)**

Algorithm input, as in “cryptographic preimage attacks”

**prepared statements (n.)**

Same as parameterized queries

**preset (n., v., or adj.)**

**pretexting (n.)**



**print out (v.), printout (n.)**

**Printed circuit board (PCB) (n.)**

**prioritize (v.)**

To rank vulnerabilities by severity level in the environment

**privacy protection (n.)**

**privesc or privilege escalation (n.)**

**principle of least privilege (n.)**

Concept allowing users only enough permissions as needed for a role

**protocol (n.)**

**Process identifier (PID)**

Pronounced as letters or “pidd”

**proof of concept (n.), proof-of-concept (adj.) (PoC)**

**Proprietary**

Closed source

**Example:** MS Word

**ProtonMail**

**prod (n. or adj.)**

System in production, as opposed to a development (dev) system

**program (n. or v.)**

**programming languages (n.)**

**provision (v.)**

**ProxMox Virtual Environment (VE)**

Enterprise Virtualization

**Pseudo-random number generators (PRNGs)**

Used often in slot machines

**Pre-shared key (PSK)**

Shared secret

**\*.pub**

File extension for public key

**public address spaces (n.)**

**Public key infrastructure (PKI)**

**playbook (n.)**

**public-facing (adj.)**

**public key, public key encryption (n.)**

Public key is a type of cryptographic key

**publicly known (adj.)**

**purple team (n. or v.)**

**PUT request (n.)**

**PuTTY**

Avoid using this tool

Use OpenSSH

**pwdump**

**pwn (v. or n.)**

To defeat, to own

Pwn rhymes with own

**The Pwnie Awards**

Annual awards ceremony for hackers during

Black Hat

**Python**

Programming language. Monty Python  
references in tool names are encouraged.

# Q

## **QA**

Quality Assurance

## **QC**

Quality Control

## **QLess**

Queue management platform

## **QR code (n.)**

Quick response code. Do not spell out.

## **Quality Security Assessor (QSA)**

## **query string (n.)**

## **queue (n.)**

## **QuickTime**

## **QWERTY**

Common keyboard layout originally designed for typewriters

## R

### R

Programming language

**race condition (n.)**

**rainbow table (n.)**

**RAM (n.)**

Random access memory

Do not spell out

**RankBrain**

Google AI algorithm used to sort search results

**rcp**

Remote copy. Allows the transfer of files to and from another system over the network. Be aware of the scp information from openssh release 8, stating using scp is not recommended.

**ransomware (n.)**

Malware that threatens to publish or delete data unless a ransom is paid

**RAR file, .rar file**

**Raspberry Pi**

Single-board computer

Versions include Raspberry Pi 3 model B and Raspberry Pi Zero W

Previous Operating System was Raspbian

In 2020: Operating System name change to

Raspberry Pi OS

**rate-limit (v.), rate limiting (n.)**

As in “read/write privileges.”

**ratios (n.)**

Write with a colon and no space

32:9

**RCPT**

Short for receipt

**read access (n.)**

**readme file or README file (n.)**

**read-only (adj.)**

**real-time (adj.), in real time (n.)**

**read/write (adj.)**

**reCAPTCHA, reCAPCHAs (n.)**

Google’s proprietary CAPTCHA system

**RC4 NOMORE**

Attack that affects the RC4 cipher

Pronounced as letters or “ark-four”

**Reddit, redditor (n.)**

**[REDACTED]**

Indicates a censored section of code, often passwords or PII. Use the tech font if it’s part of a code snippet. Redact your images by drawing black boxes in image editing

**Red Hat**

GNU Linux operating system.

**Redis**

Open source in-memory key value store

**RedLock**

Cloud DevOps vendor

**RedSnarf**

Tool used during security assessments

**red team, red teaming (n.)**

Red teaming is a type of offensive engagement. Define briefly on first use to clarify your intended meaning.

**reduce (v.)**

**Referer**

Famous spelling of HTTP referrer header

**reflect (v.), reflected (adj.)**

Attack pattern a payload is

**registry hive (n.)**

**Relational Database Service (RDS)**

**remediation (n.), remediated (adj.)**

The process of improving a system to a known good state where elements of a vulnerability or impact are no more.

**remote access (n.)**

**Remote access trojan (RAT) (n.)**

Pronounced “rat”

**Remote code execution (RCE) (n.)**

**remote desktop (v.)**

**Remote Desktop Protocol (RDP)**

**Remote method invocation (RMI)**

**replay attacks (n.)**

**replicants (n.)**

Fictional androids in 1982’s Blade Runner.

**reportlet, reportlets (n.)**

**report names (n.)**

**repository or repo (n.)**

**reproducible (adj.)**

**requests (n.)**

**request for proposal (RFP)**

**response-splitting (n.)**

**REST, RESTful**

Representational State Transfer  
Web services

**restart (v.)**

**retcon (v. or n.)**

To retroactively change the continuity of a story in a “do-over” Informal.

**retest (v. or n.)**

**Example:** Retest to validate the results

**Return-oriented programming (ROP)**

**retweet (v. or n.)**

**reuse (v. or n.)**

**reverse-engineer (v.)**

**reverse engineering (n.)**

**reverse proxy (n.)**

**reverser (n.)**

Reverse engineer

**RFB**

Remote Frame Buffer protocol

**RFID**

**RFID card (n.)**

Radio frequency identification card

**rickroll (v.), rickrolling (n.)**

**ride-share, ride-sharing (n., v., or adj.)**

**right-click (v.)**

**ringtone (n.)**

**RISC**

Reduced instruction set computing

**risk (n.)**

Perceived threat of a security weakness

**Risk-based assessment (RBA) (n.)**

**RNGs**

Random number generators.

**roadblock (n.)**

**roadmap (n.)**

**ROBOT attack (n.)**

**Return of Bleichenbacher's Oracle Threat**

**Rockyou, Rockyou.text**

Large password-cracking dictionary

**rogue access point (n.)**

**rogue cell tower (n.)**

Also called a “cell-site simulator

**Role-playing game (RPG)**

**rollback (adj. or n.), roll back (v.)**

**root or root (n.)**

**root (v.)**

To gain root-level access, to jailbreak

**rootkit (n.)**

**Root the Box**

An annual CTF competition and its supporting software infrastructure.

### **RPC**

Remote procedure call

### **RSA**

1. Encryption Algorithm
  2. Tech company
  3. Annual San Francisco security convention
- Pronounced as letters

### **rsh**

Short for remote shell. Allows the execution of non-interactive programs on another system.

### **RT, RT'd, RTs**

Retweets on Twitter. Informal.

### **RTF, .rtf file**

Rich Text Format. A document file format.

### **RTFM**

Read the fucking manual. Informal.

### **Rubber Ducky**

### **Rule 34**

If it exists, there is porn of it

### **rulesets (n.)**

### **Ruby**

Programming language  
Project uses the CoC - Contributor Covenant

### **“running as” another user (runas)**

Command to execute a program by running as another user on Windows.

### **runtime (n.), run-time (adj.)**

### **rust**

## S

### **S3, S3 buckets (n.)**

Simple Storage Service  
Amazon service

### **safelist, safelisting (n. or v.)**

Proposed alternative term to whitelisting  
Not yet widespread  
Related: blocklist

### **salami slicing attack (n.)**

Repeatedly stealing money in very small quantities

### **Salesforce**

### **salt (v. or n.), salted (adj.)**

In encryption, salted code has random values sprinkled in to make this more difficult to decode.  
If two users have the same password, salting ensure the hashes will not be the same.

### **same-origin policy (SOP) (n.)**

### **SAM file (n.)**

Sequence alignment format file

### **SAML**

Security assertion markup language.

### **sandbox environment (n.)**

### **sandbox escape (n.)**

Modifying privileges in a system past the manufacturer intention to gain root access.

### **sandboxing (n. or v.)**

### **sanitized (adj.)**

### **SANS**

The SysAdmin Audit Network Security Institute. Pronounced “sans.”

### **SASL**

Simple Authentication and Security Layer  
Pronounced “sassle”

### **SCADA**

Supervisory Control and Data Acquisition

### **screenshot, screenshot (n.), screen capture (n.) (v.)**

Capture of a screen using scrot or printscreen  
Avoid use in formal instruction writing. Instruct the user to “see Figure 2” instead.

### **Scala**

### **scannability (n.), scannable (adj.)**

### **science fiction or sci-fi (n.)**

### **scope (n.)**

Applications and environments a pen testing team evaluates for vulnerabilities during an engagement.

### **scope creep (n.)**



**scp**

Secure copy protocol from OpenSSH. Not recommended by the project as of release 8.0 “The scp protocol is outdated, inflexible and not readily fixed. We recommend the use of more modern protocols like sftp and rsync for file transfer instead.”

<https://www.openssh.com/txt/release-8.0>

**screen time (n.)****script, scripting (n.)****script code (n.)****scroll bar (n.)****scrum (n. or v.)****script**

A password hashing (not encryption) algorithm  
Pronounced “ess-crypt”

**SCSI**

Small Computer System Interface  
Parallel interface  
Pronounced “sexy” or “skuzzy”

**the Scunthorpe problem**

Non-obscene words are sometimes blocked because a banned string of letters, such as “sex” in “Sussex” or “cock” in “Hancock”

**scrape (v.), scraping (n.)**

A script can retrieve (scrape) all of the data from a web page in lieu of an API retrieving

the specifically desired information.

**screen-capture (v.)****screensaver (n.)****screenshot****SDK**

Software development kit

**SDLC**

Software development life cycle

**sealioning (n.)**

A type of trolling that involves persistently asking questions in bad faith

**Search engine optimization (SEO)****second-order (adj.)****secure boot (n.)****security breach (n.)****security controls (n.)**

Code and other tools (as opposed to policy) to enforce repeatable security.

**Security incident response plan (SIR Plan)****Security information and event management (SIEM)**

Pronounced “sim”

**security key (n.)**

**Security Monkey**

**security questions (n.)**

**Security support provider (SSP)**

**security through obscurity (n.)**

**Security Without Borders**

**seed, seeding (n. or v.)**

As in “second-order SQL injection”

**segmentation (n.)**

**segregate (v.), segregation (n.)**

**segue (n.)**

**Segway**

**SegWit**

Segregated Witness

**self-driving vehicle (n.)**

**self-generated (adj.)**

**security questions (n.)**

**Semantic Versioning**

Also written as SemVer and semver

**Sender Policy Framework (SPF)**

**serialization (n.)**

**servers (n.)**

**Server Message Block (SMB)**

**server-side (adj.)**

**ServerSignature**

**ServerTokens**

**Service-level agreement (SLA), SLAs (n.)**

**service provider (n.)**

**Service Set Identifier (SSID)**

Service Set Identifier

Human-readable name of a Wi-Fi network

**servlet, servlets (n.)**

**servo, servos (n.)**

**session fixation (n.)**

**Session Initiation Protocol (SIP)**

If spoken, use the entire phrase, not the acronym

**set up (v.), setup (n. or adj.)**

**SHA-1, SHA-256**

Secure Hash Algorithm

**sharing economy (n.)**

**shebang**

absolute path to the interpreter

`#!/bin/bash`

**shell (n.)**

**shell script (n.)**

**Shellshock**

**shelve (v.)**

To discontinue the use of  
Corporate jargon, use sparingly

**shill**

Publicly help or lend credibility to a person or organization without disclosing a close relationship or payment

Not transparent

**Example:** My first week in the department, I was given a long list of where the clients regularly shill articles at cost.

**short-code**

Used with CMS rather than typing full term

**short-name (n.)**

Shortened filename. Also called an 8.3

**short-term (adj.)**

**shoulder surfing (n.)**

Standing behind someone to steal their passwords

**sid**

Debian unstable – never going to be released, no timely security updates

**-side**

**Signal**

Private messaging app - Does log errors

**signal-boost (v.)**

**signal-to-noise ratio (SNR) (n.)**

**signature (n. or v.)**

**signed long (n.)**

Long, signed integer data type

**sign in (v.), sign-in (n.)**

**sign out (v.), sign-out (n.)**

**sign up (v.), signup (n.)**

**Silicon Valley**

1. Generic term for the tech industry based in the greater San Francisco Bay Area
2. HBO TV show about developers

**Silk Road**

Underground market website operational between 2011 and 2014

**silo, siloed (v.)**

**silo, silos (n.)**

**SIM card (n.)**

**Simple object access protocol (SOAP)**

**Single sign-on (SSO)**

**site map (n.)**

**sinkholing (n.)**

**sink-to-source analysis (n.)**

**Siri**

Apple AI

**Six Sigma**

**skeuomorph (n.)**

Modern feature that is styled to look like an older, physical version

**skill set (n.)**

**SLAAC attack (n.)**

Stateless Address Autoconfiguration

**Slack**

Chat client – electron app

**slash or /**

**slideshow (n.)**

**SLO (n.)**

Service-level objective

**slug (n.)**

**S/MIME**

Public encryption key standard for MIME data

**smartglasses (n.)**

**smart lock (n.)**

Generic term for an IoT lock

**smartphone (n.)**

Internet-enabled phone

**smart safe (n.)**

The not so smart safe, easily. The dry run for DefCon was held at HeatSync labs, a makerspace in Mesa, Arizona.

**SMS**

Short message service

**SMTP server**

Simple Mail Transfer Protocol

**SMURF attack**

DDoS

**Smurfette**

1. Female smurf character created from evil character, Gargamel
2. Unwanted character in our community pushing code of conduct enforcement

**Snapchat**

**sniff (v.)**

To monitor and capture data packets

**snippet (n.)**

Amount of quoted code

With formal writing, use “a code excerpt”

**SNMP**

Simple network management protocol

### **SNMPwalk**

Network monitoring tool

### **Snyk**

Open source security tools company

Pronounced “sneak” or “snick”

### **S/O or s/o**

Shout out

### **SOA**

1. Start of Authority (SOA)

2. Service-oriented architecture (SOA)

Full text for first use.

**Example:** Start of Authority (SOA)

### **social engineering (n.)**

### **social media (n.)**

### **Social Security number (SSN) (n.)**

### **sockets (n.)**

### **SOCKS**

Socket Secure protocol

### **Sofacy**

A hacking group also known as APT28 or Fancy bear

### **soft skills (n.)**

communication skills

### **soft token (n.)**

### **software (n.)**

### **Software as a service (SaaS)**

Pronounced “sass”

### **Software-Defined Networking (SDN)**

### **Software-Defined Radio (SDR)**

### **Software Freedom Conservancy (SFC)**

This nonprofit organization allegedly rejected assisting cURL in 2019, allegedly stating SFC did not have the bandwidth to support cURL.

This led to projects turning to the Open Collective and independent assistance instead, among other reasons.

### **Software Freedom Law Center (SFLC)**

Provides legal representation and other law related services to protect and advance Free and Open Source Software. Eben Moglen launched this center in 2005.

### **software piracy (n.)**

### **solid state disk (SSD)**

### **solid state drive (SSD)**

### **source code (n.)**

### **sources**

### **SOX**

Sarbanes Oxley

### **spacebar (n.)**

**spacetime (n.)**

**SpaceX**

**spam (v. or n.)**

**spear-phishing (n. or v.)**

Tailored phishing attacks that are aimed at a specific target

**-specific (adj.)**

**Spectre**

A flaw that affects Intel, AMD, and ARM

**speedrun, speedrunning (n.)**

**SpEL**

Spring Expression Language

**spellcheck (v.), spell check (n.)**

Check spelling

The action of checking the spelling

The tool is not a “spellchecker”

**sphere of control (n.)**

**spider (v.)**

**splash page (n.)**

**split tunneling (n.)**

**Splunk**

Security tool, a SIEM

**spoof (v. or n.)**

To create a fraudulent, attacker-controlled replica of legitimate data

**sprint (n.)**

**spyware (n.)**

**SQL**

Pronounce as “sequel” or as letters “SQL”

**SQLi**

SQL injection application vulnerability

Pronounce the phrase or “sequel-eye”

**sqlmap**

Tool that finds and exploits SQL injections

**Square Cash**

Mobile payment service

**Squarespace**

**Squid**

web proxy

**SSDLC**

Secure software development lifecycle.

**SSHD**

Solid state hybrid drive. Spell out on first

**SSH port (n.)**

Secure Shell port

Standard is 22

**SSRF**

Server-side request forgery.

## **SSI**

Server Side Includes

## **SSL/TLS**

Security protocols. Secure Sockets Layer/Transport Layer Security

## **SSN**

Social Security number. Don't capitalize "number." Spell out with first use

**stack trace (n.)**

**stack canaries (n.)**

**staff augmentation (n.)**

**stakeholder (n.)**

**start up (v.), startup (adj. or n.)**

**stateful (adj.)**

FTP is a stateful protocol

**stateless (adj.)**

HTTP is a stateless protocol

**Statement of Work (SOW) (n.)**

**status, statuses (n.)**

## **STEAM**

Science, technology, engineering, arts, and math

## **Steam**

A video game distribution platform

**steganography (n.)**

A strategy of hiding information in an image or audio

## **STEM**

Science, technology, engineering, and math.

**sticky cookie (n.)**

## **Stingray**

A surveillance tool that appears as a Wi-Fi network but actually takes information from the devices that connect to it.

## **STIX**

Structured Threat Information Expression. As in "stageless Meterpreter payload"

**stockholder (n.)**

**subreddit (n. or v.)**

## **STP**

Spanning Tree Protocol

**stream, streaming (n. or v.)**

## **The Streisand Effect**

Effect states that requesting the internet to not do something will cause the internet to deliberately do that thing more string literal (n.)

**System center configuration manager (SCCM)**

**su**

change user ID or become superuser

**Subject matter experts (SMEs)**

**subvert (v.)**

**sudo**

Execute a command as another user

**sudoers (n.)**

File to allocate system rights

**sunset (v.)**

Corporate jargon for planned phasing out.

**superclasses (n.)**

**subdirectory (n.)**

**subdomain (n.)**

**SuperHappyDevHouse (SHDH)**

Type of hackathon party

**subkey (n.)**

**subnet (n.)**

**subreddit (n.)**

**subsection (n.)**

**superuser (n.)**

**surveillance software (n.)**

**subsystems (n.)**

**SVN**

Subversion command line tool

Subversion is a version control system, which allows you to keep old versions of files (usually source code), keep a log of who, when, and why changes occurred, etc., like CVS, RCS or SCCS. Subversion keeps a single copy of the master sources. Karl Fogel, original developer.

**Swagger**

Open source software framework and tools to build, design, and document APIs

**sweepstakes (n.)**

**Sweet32 attack (n.)**

Birthday attack on block ciphers in TLS and OpenVPN

**SWF file, .swf file**

Legacy Flash file format. Pronounced “swiff.”

**swung dash**

~

**Symfony**

PHP framework

**sync (n. or v.), syncing (v. or adj.)**

**sysadmin user (n.)**



**syslog server (n.)**

**System on chip (SoC)**

**systematically (adv.)**

**systemic (adj.), systemically (adv.)**

## T

### **table-top modeling (n.)**

### **Tactics, techniques, and procedures (TTP, TTPs)**

Used during threat modeling exercises

### **tag stripping (n.)**

### **tailgating (n.)**

Entering a secure area by tagging along with someone who has proper credentials

### **tail of the file (n.)**

Last 10 lines of a file.

### **take over (v.), takeover (n.)**

Attacker could take over the system

### **target, target system (n.)**

### **tarpitting (n.)**

Deliberate slowdown of a network to contain or deter an attack

### **TCP/IP**

Transmission control protocol/internet protocol  
Wired Style calls this “the mother tongue of the internet”

### **tech-savvy (adj.)**

Technical point of contact (T-POC)  
Pronounced “tee-pock”

### **TEE model (n.)**

Short for Trusted Execution Environment  
Co-processor on ARM (found on Android)

### **telemetrics**

Used to collect data on running operating systems like Clear Linux

### **telemetry**

Automatic transmission of data collection

### **Telemetry API**

### **telephony pen testing (n.)**

### **teleprompter (n.)**

### **telnet**

1. protocol
2. user interface for interaction with another host using telnet port 23

### **terminate (v.)**

To end or close, as in a program

### **test bed (n.)**

### **text box (n.)**

### **text message (n.)**

### **tgrep**

### **thick client (n.)**

Computer providing rich functionality independent of the server

**thick usb (n.)**

Live persistent USB storing configurations and data. GNU Essentials thick usb allows you to travel with your entire OS on usb.

**threats (n.)**

Security threat categories include: competitor, hacktivist, insider, dealer, nation state, and third-party integrator.

**third party (n.), third-party (adj.)**

**threat hunting (n.)**

Defensive security.

**threat modeling (n.)**

Exercises running through risk assessment procedures or incident response (IR) plans

**The Three Laws of Robotics**

Written by Isaac Asimov

**they**

Use singular they for humans  
Do not personify items

**throughout**

**throughput (n.)**

Total amount of data transmitted over a link per unit of time

**throw**

Transfer control from try to catch

When an exception or unwanted event (bad network connection, poor input, missing file) occurs

**throws**

Exception handling with out try and catch

**tilde (n.)**

~ Swung dash  
126 in ASCII

**tilde enumeration (n.)**

**time-boxed (adj.)**

**timeframe (n.)**

**time-lapse (adj.)**

**TKIP**

Temporal Key Integrity Protocol Encryption protocol  
Do not spell out

**TLAs (n.)**

Three-letter agencies  
Refers to government

**TLD, TLDs (n.)**

Top-level domain. Spell out with first use

**tl;dr or TL;DR**

“Too long; didn’t read”

**TLS**

Transport Layer Security.  
Cryptographic protocol  
Replacement for Secure Sockets Layer (SSL)

**Time to detection (TTD)**

Software issue occurring between condition  
check and results of the check

**timeline (n.)**

**timeout (n.), time out (v.)**

**timestamp (n.)**

**time zone (n.)**

**TOCTOU bug**

Short for “time of check to time of use.”

**tokens (n.)**

**tokenization (n.)**

**toolbar (n.)**

**toolchain (n.)**

**Tor, TOR**

The Onion Router projects  
Privacy-focused web browser  
Controversial. 2016, board replaced and in 2020  
during coronavirus 13 core team let go. 22  
remain

**torrent (n.)**

**Torx**

Hexalobular screwdriver head shape

**TOTP**

Time-based One-time Password

**touchpad (n.)**

**touchscreen (n. or adj.)**

**traceback (adj. or n.)**

**trapdoor (n.)**

**trend line (n.)**

**triage (n. or v.)**

**trick (v.)**

**trigger (v.)**

**trim range, trim value (n.)**

**Trisquel**

Free GNU Linux distribution  
Ubuntu based

**trivial (adj.)**

**trojan (n.)**

Malware that masquerades as something  
legitimate

**troll (n. or v.), trolling (n.)**

**troubleshoot (v.)**

**TrueCrypt**

**trust boundary (n.)**

**try-catch block (n.)**

**Tumblr**

**Turing test**

Alan Turing, computer scientist, developed this test to establish whether the actions were from a machine exhibiting artificial intelligence or a human

**Turla**

Hacking group also known as Snake or Uroburos

**TW**

1. Trigger warning
  2. Technical writer
- Spell out with first use

**tweet (v. or n.)**

**Twitter**

Microblogging website

**Twitterstorm**

**two-factor authentication (2FA) or (TFA)**

**typosquatting (n.)**

URL hijacking, using typo possibilities

# U

## UDP

User Datagram Protocol  
Faster, More Lossy alternative to TCP

## UGT

Universal Greeting Time

## UI (n.)

User Interface

## uncanny valley (n.)

The disturbing nightmare gap between semi-realistic artificial faces and actual living humans

## uncredentialed (adj.)

## unicorn (n.)

1. Corporate jargon for a successful startup
2. One of a kind contributor

## Uninterruptible power supply (UPS)

## Unix or UNIX

Multi-user, portable operating system  
Bell Labs development by Ken Thompson,  
Dennis Richie and others  
Pronounced “you-nicks”

## UNIX philosophy

- hierarchical filesystem
- plaintext
- devices as files
- use of pipes and cli

## unpickling (n.)

In Python, the process of taking something out of serialization

## The Unreal Engine

## unremediated (adj.)

## unsanitized (adj.)

Security checks were not performed  
Typically pertains to user-supplied data.  
“Sanitized” data is safe for an application to ingest, whereas unsanitized data may not be.

## unserialize (v.), unserialized (adj.)

## Untwister

Tool that predicts random numbers from insecure algorithms

## unvalidated vs. invalidated

## upload (v. or n.)

Send information, data or files up to the server

## uppercase (adj. or v.)

## uptime (n.)

Time the computer has been running  
Command “uptime” can be used for running state information

## up-to-date (adj.)

## upvote (v. or n.)

**URI, URIs**

Uniform/Universal Resource Identifier  
URLs and URNs are subsets of URIs

**URL, URLs**

Uniform/Universal Resource Locator

**URN, URNs**

Uniform/Universal Resource Name.  
Pronounced as letters

**USB drive (n.)**

Universal Serial Bus  
Storage device that connects via USB

**USB Rubber Ducky**

Keyboard HID that automates keystrokes

**Usenet**

Bulletin board system that preceded the modern  
Internet and still exists

**user base (n.)****URL-encoded (adj.), URL encoding (n.)****URL shortener, URL-shortening (n.)****User experience (UX)****usernames (n.)****user-supplied (adj.)****UTF-8**

A Unicode character encoding.  
Pronounced as letters with the number 8 “UTF8”

<b>V</b>	<b>Vimeo</b> Video-sharing company
<b>values (n.)</b>	<b>viral (adj.)</b> Rapidly popular, especially online.
<b>Vault</b>	<b>Virtual desktop infrastructure (VDI)</b>
<b>vendor (n.)</b>	<b>virtual reality (VR) (n.)</b>
<b>Vendor security assessment (VSA)</b>	<b>virus (n.)</b>
<b>Venmo</b> Mobile payment service	<b>VLAN</b> Virtual local area network Pronounced “vee-lan”
<b>version numbers (n.)</b>	<b>vlog (n. or v.)</b> Video blog <b>Example:</b> The ignorant marketing intern asked the veteran advocate, who fought for our right to blog, if she knew what a vlog was - while requesting use of the camera equipment.
<b>verbose (adj.)</b> Verbose logs, banners, and error messages reveal more information about underlying structures to users than is necessary.	<b>VM</b> Virtual machine
<b>verb tunneling (n.)</b>	<b>VMware</b> Virtualization and other products/services Controversial. Sued by Hellwig for GPL violation. The case was dismissed and did not win appeal in Germany.
<b>VGA</b> Video graphics array	<b>VNC, vnc server, vnc client</b> Virtual Network computing
<b>videoconferencing (n. or adj.)</b>	
<b>video games (n.)</b>	
<b>vim, Vim</b> Vi Improved Text editor, often preinstalled in a distro, Upwards compatible to Vi 2019 high-severity bug allowing remote attackers to execute arbitrary OS commands using vim	



Often vulnerabilities exist including remote code execution on the client

Many vnc providers charge a fee as well  
Some VNC server login in the background as noted when using Raspberry Pi default vnc - which is free but ...at what cost?

### **voicemail (n.)**

### **VoIP**

Voice over Internet Protocol  
Pronounced “voyp”

### **VPC**

Virtual private cloud

### **VPN**

Virtual private network

### **VPS**

Virtual private server

### **VR**

Virtual reality

### **vulnerable (adj.)**

### **vulnerability or vuln (n.)**

Any condition, configuration, or state that increases an asset’s logical, informational, or physical exposure to loss of availability, integrity, or confidentiality  
Vuln is informal

### **Vulnerability Lifecycle Management (VLCM)**

### **vulnerability scan (n.)**

Assessment of a target using vulnerability-scanning tools to detect security weaknesses

### **vulnerability scanner (n.)**

## **W**

### **WAF, WAFs**

Web application firewall  
Pronounced as “waff”

### **WAN**

Wide area network.

### **WannaCry**

May 2017 Ransomware attack

### **war-dialing (n.)**

### **war-driving (n.)**

Attempting to find an open network while either driving or as a passenger in a moving vehicle

### **-ware (n.)**

Always close -ware compounds.  
middleware, vaporware, VMware,

### **warez**

Slang for wares

### **WarioWare**

### **WarGames**

1983 movie about a NORAD AI playing thermonuclear war.

### **war gaming (n.)**

Also known as threat modeling or table-top

### **watch list (n.)**

### **watermark (n. or v.)**

### **Watson**

An IBM productized question-answering AI, famous for winning Jeopardy!

### **Wayland**

Display server protocol. Display server using this protocol is called the compositor. See Weston. The goal of this project is to replace X.

### **web (n.)**

### **Web 2.0**

### **WebDAV**

Web Distributed Authoring and Versioning.

### **web app (n.)**

### **web application (n.)**

### **web-based (adj.)**

### **web browser or browser (n.)**

### **webcam (n.)**

### **webcomic (n.)**

### **web console (n.)**

### **web directory (n.)**

### **web forum (n.)**

### **webhooks (n.)**

User-defined HTTP callbacks

**webinar (n.)**

**Weboob**

Web Outside of Browsers

“Weboob is a collection of applications able to interact with websites, without requiring the user to open them in a browser. It also provides well-defined APIs to talk to websites lacking one.”

Controversy over the the rejection of this project by the Debian project because of the name only.

**web page (n.)**

**web proxy (n.)**

**web root (n.)**

**web server (n.)**

**webshell (n.)**

**website or site (n.)**

**WebSocket, WebSocket Protocol**

**webtree or web tree (n.)**

Use “directory structure” instead

**WebView**

Android system component

Easily create web apps linked to a website

WebSphere

IBM product

**WeChat**

Popular Chinese chat app also known as Weixin (微信)

**weeklong (adj.)**

**Weibo**

Chinese microblogging site.  
well-formed (adj.)

**WEP**

Wired Equivalent Privacy. A wireless network encryption protocol

**Weston**

**wget**

GNU wget is a “free software package for retrieving files using HTTP, HTTPS, FTP and FTPS, the most widely used Internet protocols. It is a non-interactive commandline tool, so it may easily be called from scripts, cron jobs, terminals without X-Window support” Copyright © 2017 Free Software Foundation, Inc.  
Pronounced “W-get”

**WhatsApp**

Messaging app

**white-box testing (n.)**

**white hat (n.)**

**whitelist (v.), white list (n.)**

**whitepaper (n.)**

**white space (n.)**

**whole disk encryption (n.)**

**whoami**

Command to identify the user

**whois command, WHOIS database (n.)**

Query protocol

**-wide (adj.)**

**widescreen (n. or adj.)**

**widgets (n.)**

**Wi-Fi**

According to the Wi-Fi Alliance, Wi-Fi does not represent wireless fidelity  
Preferred spelling is Wi-Fi

**wiki (n.)**

Collaborative, editable hypertext site

**WikiLeaks**

Similar to Cryptome, released documents

**Wikipedia**

User-curated online encyclopedia  
Started as Nu-pedia

**wildcard(s) (n.)**

1. characters - text

**Example:** \*

2. characters - human

**Example:** The unexpected and underestimated chixor was considered the wildcard.

**Wine**

Wine Is Not an Emulator

Software emulator for proprietary systems –  
emulates Windows programs

**wiretap (n. or v.)**

**Wireless intrusion detection system (WIDS)**

**woot or w00t**

We officially own them!  
Joyous internet exclamation

**WOPR**

Fictional NORAD AI featured in the 1983 movie WarGames. Pronounced “wopper.”

**WordPress**

**word processor (n.)**

**workflow (n.)**

**word list (n.)**

Always can be edited in the future  
A list of words

**work stream (n.)**

**world-readable (adj.)**

Describes files or directories that any user has read permissions

**world-writable (adj.)**

Describes files or directories that any user has write permissions

**WPA, WPA2**

Wi-Fi Protected Access. Wireless network Security protocols. Do not spell out.

**write-only (adj.)**

**write**

r-**w**-x

Write permissions are granted based on user or group permissions

**wireless signal bleed (n.)**

**write out (v.)**

**WSDL file, .wsdl file**

Web services description language  
Describes endpoints for messages  
Used with XML  
Pronounced “wazz-dull”

**wireshark**

Interactively dump and analyze network traffic  
GUI network protocol analyzer  
Live or saved capture file

**WWDC**

Worldwide Developers Conference. An annual Apple conference in the Bay Area.

**www**

The World Wide Web

**WYSIWYG**

Short for “what you see is what you get.”  
Pronounced “wizzy-wig.” Informal.

## **X**

### **X.509**

Certificate for internet protocols

### **x86**

### **Xbox**

Windows gaming

### **xDedic**

RDP tool

### **XF86Config**

XFree86 configuration file used by X server to set config parameters for font paths, keyboard, mouse, monitors, video card, etc. Often needed to be updated after adding new hardware.

## **X**

### **X Window System**

### **X Version 11**

### **X Window System, Version 11**

### **X11**

X.org Foundation requests the above names when referring to the software.

Never X Windows!

A portable, network-transparent window system  
Trademark Open Group

### **XML file, .xml file**

extensible markup language

### **XMLHttpRequest (XHR)**

API

### **XOR cipher (n.)**

Additive cipher

Pronounced “exor”

### **XOR**

Exclusive Or

### **X org**

### **XScreenSaver**

Extensible screen saver and screen locking framework

“A collection of free screen savers for X11, macOS, iOS and Android” by jwz and others.

Controversy over updated version not supported by Debian nicely solved by jwz innovative update. Indicative of the evolving culture of the Debian project and attitudes restricting updates to mainly “bug driven” development.

### **XSL**

extensible stylesheet language

### **XSS**

XSS is short for cross-site scripting.

Pronounced as letters or spoken as the whole phrase

## Y

### YA

Yet Another

### YAML

YAML Ain't Markup Language

"YAML is a full featured data serialization language and thus has its own terminology"

- yaml man page

### YAWAST

Tool used during security assessments

### years (n.)

### Yellowdog (YDL) (n.)

Distro released in 1999 for PowerPC.

### Yemen Cyber Army

Hacking group that may be Iranian

### YML file, .yaml file

### YouTube, YouTube Red

Google currently owns YouTube

### YubiKey

Hardware authentication device

Pronounced "you-bee-key"

### YUM

GNU Linux software update mechanism

Yellowdog Updater Modified

## Z

### zero-day (n. or adj.)

Unknown vulnerability not yet released to the public but exploited by hackers

Corporations have been known to request users quietly report vulnerabilities separate from issues.

Lack of transparency can create cultural issues. In one case, BSD developers patched a vulnerability and released the patch prior to a corp releasing public information the vulnerability even existed.

### zero growth model (n.)

### zfs

Configures ZFS file systems

Pooled storage, usually across multiple drives

Controversy – licenses

<https://ubuntu.com/blog/zfs-licensing-and-linux>

### ZIP archive (n.)

### zip file

File format extracted using unzip or another tool

### zip bomb (n.)

### ZIP code (n.)

## EPILOGUE

### Muphry's Law

Murphy's Law says that anything that can go wrong will go wrong. Muphry's Law is an intentional misspelling of Murphy's Law that applies this buttered-side-down pessimism to writing and editing. Part of the law states that "any book devoted to editing or style will be internally inconsistent."

If you find errors in this guide, have ideas to improve the next version, please visit the wiki at:

<https://gnulinux.io>

"Be consistent, some of the time" - aicra

Version 1.1

August 2020



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